



MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

VOL. 9. No. 19.
WEEKLY.

BALTIMORE, JUNE 19, 1886.

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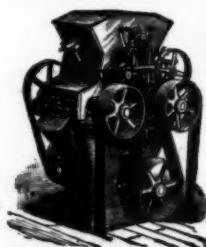
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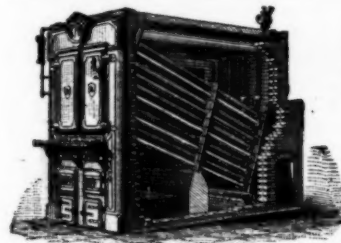
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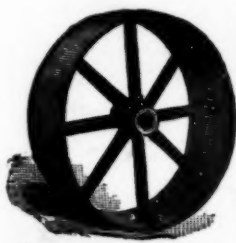
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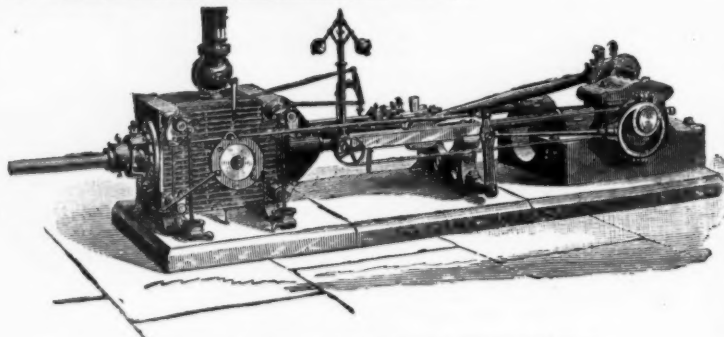
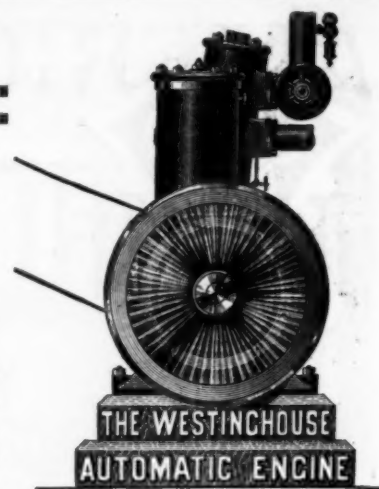
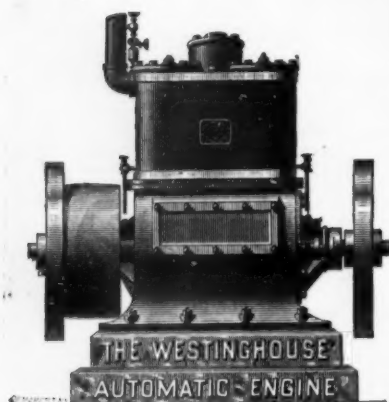
There are four indisputable evidences of the established success of the

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- 1st.—The volume and increase of sales, out of all proportion to any other engine in the eastern market.
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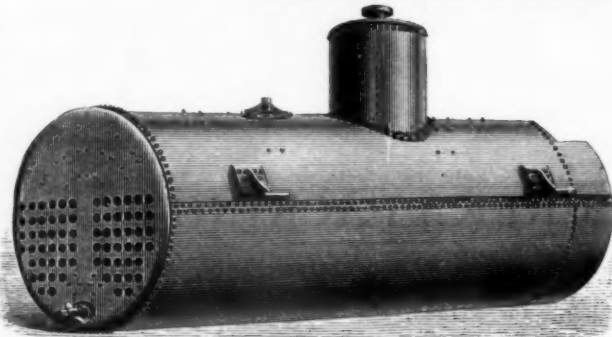


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The cost of this Mill is much less than any other machine of sufficient capacity to do the same amount of work.

It requires less power to run it, (10-horse being sufficient.)

The wear and tear of the Mill is much less than any other Quartz Mill doing the same amount of work, and the quality of the work done by it is greatly superior to work done in any other Quartz Mill now in use.

It crushes to a uniform fineness and makes no slimes, so that no sizing is required for concentration.

The Mill is equally well adapted to crushing and pulverizing of all classes of ores, either for amalgamation or concentration, and will pulverize and amalgamate from one-half to one ton per hour, according to character of ore and fineness of screens.

With ordinary care there is no loss of mercury by flouing, and consequent loss of gold, as in most other Mills where mercury is used in the Mill.

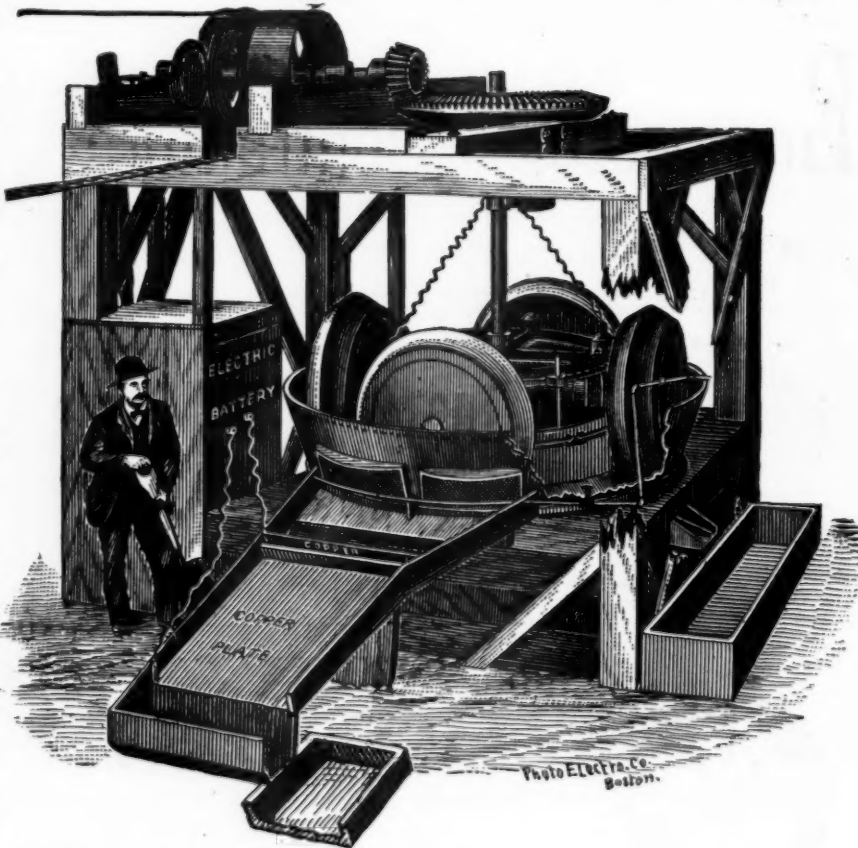
Amalgamation is carried on in the same operation with the crushing. The mercury is placed in the Mill in quantities varying from 10 to 40 pounds.

The application of electricity to the Mill for the purpose of cleaning and keeping the mercury alive has been to a very large extent superseded by the invention and introduction of the Mercury Trap in the Mill for the purpose of drawing off the mercury when charged with gold or on the slightest indication of flouing. By this ingenious device the mercury can be changed as often as desired without loss of time in either crushing or amalgamating. By opening this Trap the amalgam is discharged from the Mill in three minutes, and clean mercury introduced in its place.

To those familiar with running a Gold Mill this latter advantage will be greatly appreciated; in fact, it gives the mill-man full control of his work.

This Mill has been on exhibition at the foundry of Messrs. Bisbee & Endicott, at Chelsea, Mass., for the past 18 months, a good part of the time in active operation, and we have treated the most rebellious ores from many mining districts with most satisfactory results to the parties concerned.

The past year we have sold many Mills, which may be found in Michigan, North Carolina, Dakota, Montana, Idaho, Colorado, California, Mexico, Nova Scotia, etc. All those in operation are giving the most perfect satisfaction, as testimony will prove, and we will take pleasure in referring to any one of these on application.



We Furnish a Complete Mill for **\$2,500**, Delivered on Board Cars.

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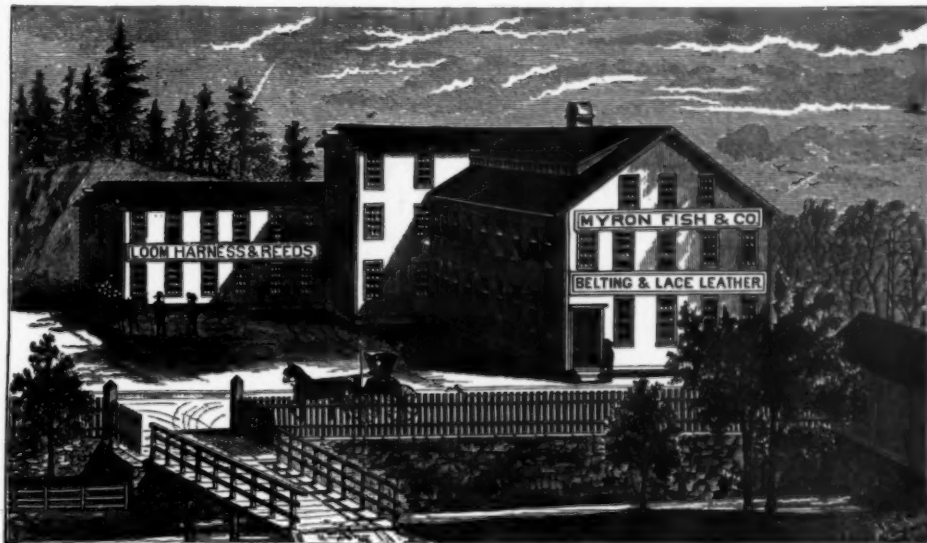
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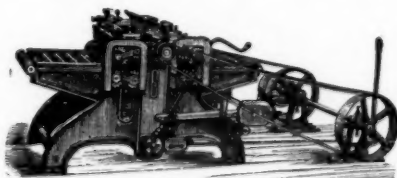
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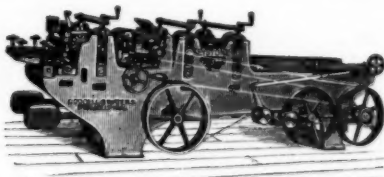
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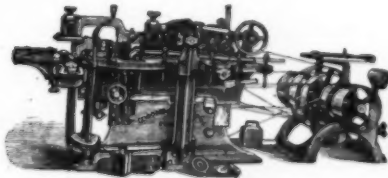
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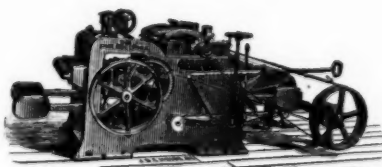
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Keystone Flooring Machine,
Surfacing 100 lineal feet per minute.

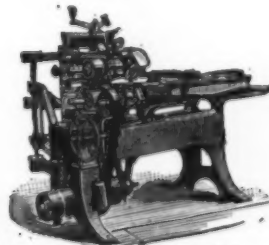


9-inch Moulder.

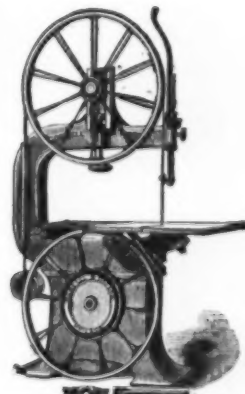


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Modern Tenoning Machine.



42-inch Band Saw.

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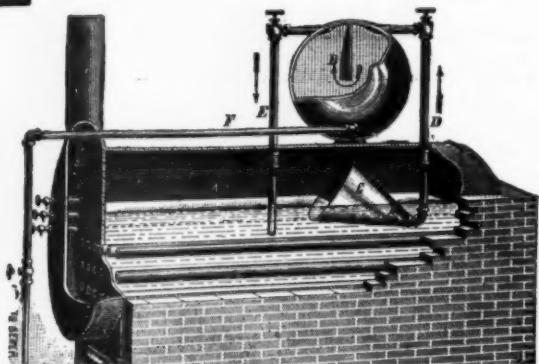
All our machines are war-
ranted as represented.

FIRE

The Hotchkiss Mechanical Boiler Cleaner

STEAM

Removes from Steam Boilers, Lime, Oil, Magnesia, and all other impurities of Boiler Water, and prevents Scaling, Foaming and Burning; but the object of this advertisement is to warn you against an INFRINGER named H. ESTELLE and his agents, who have been selling without patent or license from me, Boiler Cleaners, as shown by the cut on right hand side below. I take this method of informing the public in order that they may not further be deceived, as on August 4, 1885, a patent issued to H. ESTELLE for what he claims, as given in full with cut on right hand side below the cut, showing the HOTCHKISS CLEANER complete, except the shape of the Skimmer, which is an equivalent for my Funnel Skimmer.



The Hotchkiss Mechanical Boiler Cleaner.

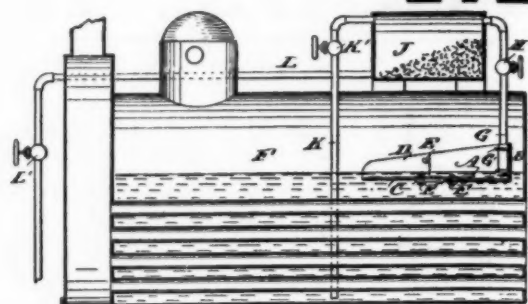
CLAIM 1. The method of collecting impurities from the water-level of steam boilers, raised thereto by ebullition, by carrying them beneath said level and upward into a reservoir with an ascending current induced by the displacement of a cooler body of water in said reservoir, and depositing the impurities therein by precipitation, substantially as specified.

CLAIM 5. A bell-mouth or device having an enlarged receiving area for gathering the sediment, and suspended within the boiler by means of a pipe extending into the same from the upper shell thereof, the said bell-mouth and pipe constituting the induction channel for the upward current, carrying the sediment, combined with a reservoir and a return-pipe leading from the same to the boiler water, the whole forming a means of circulation for the boiler water, and for removing impurities therefrom, substantially as herein set forth.

"How to Keep

BOILERS

CLEAN"



[Cut and Claim Copied from Patent.]

Having thus described my invention, WHAT I CLAIM AS NEW, and desire to secure by Letters Patent, is—

1. The combination, with the settling-drum J, of the pipe G and the skimmer A, provided with an extension-plate, extended laterally, as shown, at its front edge, substantially as herein shown and described.

2. The Combination, with the settling-drum J, of the pipe G, the skimmer A at the lower end of the same, which skimmer has a flange, B, and the extension plate C, held by bolts on the front edge of the skimmer, and having end flanges, substantially as herein shown and described.

HENRY ESTELLE.

You will observe that my claims cover a METHOD of removing impurities from the water of steam boilers, together with an apparatus for producing that effect, which, since the grant of the original patent have, without warrant, been extensively used and sold by certain imitators of my invention. All parties making, using or vending the apparatus in question, or any apparatus substantially the same in principle and mode of operation, together with all parties using the METHOD claimed, regardless of the construction of the apparatus employed, are Hereby Notified that they are infringing my said letters-patent 1877 1883; and that a full accounting for moneys derived from such infringement will be required, and that my rights will be enforced, if necessary, by legal measures.

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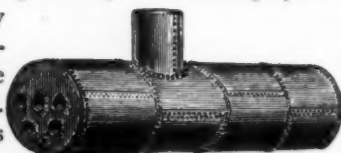
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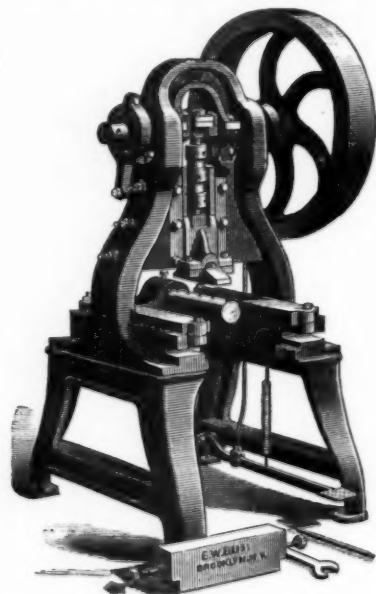
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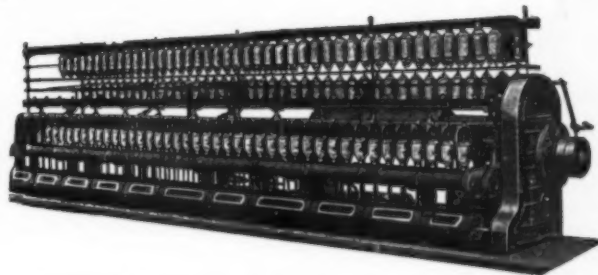
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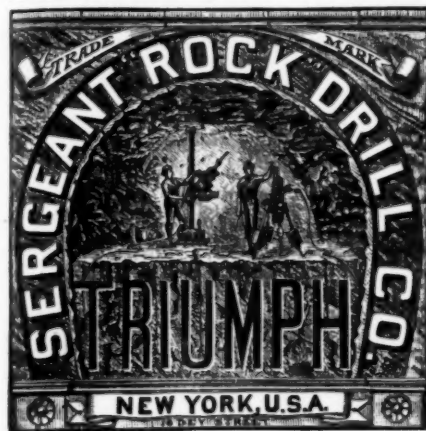
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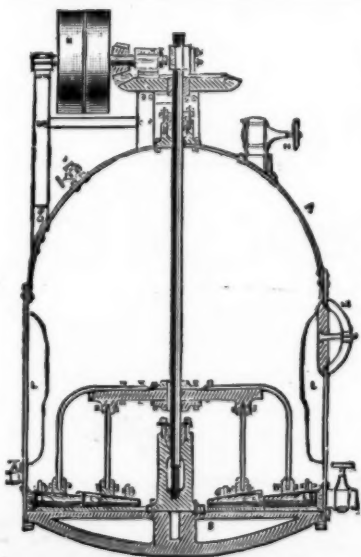
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The Only Method for Preparing the Ore for Amalgamation.

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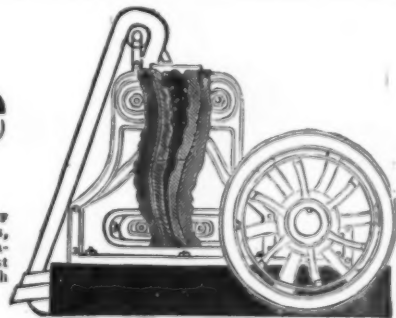
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THE MEECH CRUSHER & PULVERIZER.

This Machine will CRUSH AND PULVERIZE GOLD AND SILVER ORES to 20, 40, and 60 mesh fine, and from 20, 40 and 60 tons per day. The principles of this machine, making it superior to all others, are the peculiar concave and convex shape of the jaws, with concave and convex projections, which breaks, crumbles, stamps and pulverizes the ore with less power, wear and tear, than any other machine. MANUFACTURED BY

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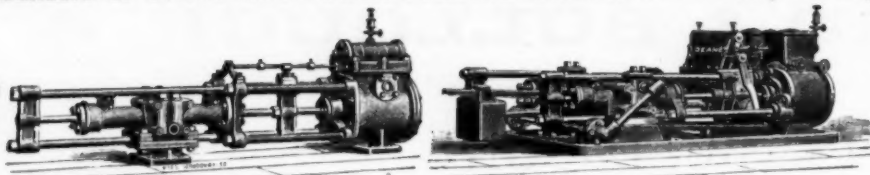
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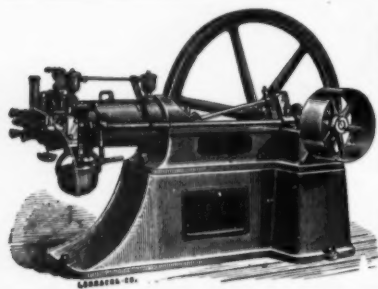
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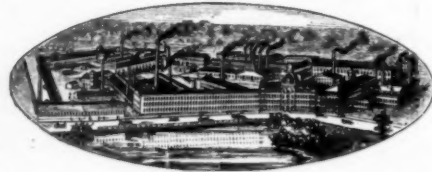
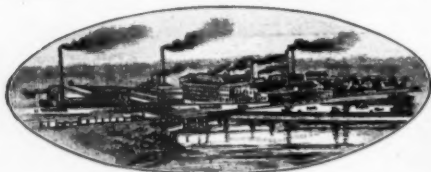
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reading matter.

BALTIMORE, JUNE 19, 1886

THE building of a grain elevator at Norfolk, through the influence of the Norfolk & Western Railroad, will be an important step in developing the foreign commerce of that city. Heretofore the shipments from that port to foreign countries have been mainly confined to cotton, but with the completion of this elevator it will be possible to build up a fine grain business. Cotton and grain combined, added to the excellent coaling facilities for steamers at Norfolk, and the other advantages of that port, ought to cause a large increase in Norfolk's commerce. Norfolk is certainly greatly indebted to the managers of the Norfolk & Western Railroad for their vigorous efforts to develop the business interests of that place. According to the letter of Vice-president Eddy, published in this issue, it is expected that this elevator will be ready for handling grain by October 1st.

OUR Birmingham correspondent calls attention to the fishery interests of Florida and predicts the development of an important industry in that line. There is no doubt of the fact that the resources of the gulf coast in this direction are destined to be a source of great wealth to that section. A few years ago one of the members of the United States Fish Commission, of Washington, who investigated the fishery interests of the South Atlantic States for the last census, told the editor of the MANUFACTURERS' RECORD that in his opinion the time would come when mullet fishing alone, in Florida, would equal the cod fishing interests of New England.

A GOOD machinist and a man understanding spoke and handle manufacturing will find good openings advertised in Business Chances.

A Good Showing.

In our last issue we gave the main facts of a report compiled by the Cape Fear & Yadkin Valley Railroad, of North Carolina, as to the recent improvements along their line. The statistics presented in that report are of so much interest that we give some additional points to day in the way of a general summary. It will be remembered that this report was a compilation of all the new buildings erected along this road and a statement of the purpose for which intended since December, 1884, or just about 18 months. The distance covered is from Greensboro, N. C., to Bennettsville, S. C., 155 miles.

In the following table the improvements designated "old" existed before the completion of this division of the road; those designated "new" have been erected since the road was opened. No property of the railroad company is included in this schedule, nor the improvements which have gone up between stations except where they are tributary to the business of the road. Greensboro is entirely omitted, though much greater progress has been made there than at any other point on the line.

The old stores, dwellings and warehouses at Fayetteville and Bennettsville are not given, being too numerous to be readily counted:

Buildings.	Old.	New.	Total.
Academies and schools.....	15	16	31
Agricultural Implement Manufactories.....	1	2	3
Bakeries.....	1	1	2
Blacksmith shops.....	12	20	32
Brick machines (power).....	1	1	2
Banks (National).....	2	2	4
Cotton factories.....	12	3	15
Churches.....	35	20	55
Cotton gins.....	81	49	130
Candy manufactories.....	1	1	2
Carriage manufactories.....	2	2	4
Cooper shops.....	9	17	26
Cotton-seed oil mills.....	1	1	2
Dwellings.....	201	258	459
Distilleries (turpentine).....	18	28	46
Edge and turpentine tool manufactories.....	1	1	2
Flower jar and pipe manufactories.....	1	1	2
Foundries.....	1	4	5
Grist mills.....	17	4	21
Hotels.....	9	8	17
Ice factories.....	1	1	2
Job printing offices.....	1	2	3
Livery and sale stables.....	1	2	3
Merchant mills.....	33	10	43
Machine shops.....	10	1	11
Mattress manufactories.....	1	1	2
Nurseries.....	2	2	4
Newspapers (weekly).....	1	2	3
Newspapers (daily).....	1	1	2
Planing mills.....	1	5	6
Stores.....	81	84	165
Saw mills.....	43	30	73
Sausage manufactories.....	1	1	2
Shoe and boot shops.....	6	1	7
Sash, door, blind and furniture mfg.....	1	5	6
Tinware manufactories.....	1	2	3
Tobacco flue manufactories.....	1	1	2
Tobacco prize houses.....	1	3	4
Tobacco warehouses.....	1	3	4
Truck farms.....	1	1	2
Turpentine still manufactories.....	1	1	2
Tobacco factories.....	1	1	2
Vineyards.....	1	1	2
Wool cards.....	3	1	4
Wheelwright shops.....	1	6	7
Warehouses.....	5	24	29
Wagon and cart manufactories.....	1	5	6
Total.....	605	635	1240
*Less "new" dwellings at Fayetteville and Bennettsville, the "old" dwellings at those places not being counted.....			122
			605 513

These statistics are well worth a careful study. Here is a section of country that has not been advertised as showing any great development like some parts of the South; in fact, with the exception of two cities along the line, Greensboro and Fayetteville, very little has been heard of the country along this road, and Greensboro, the place which has shown the greatest growth, is not included in this report. The foregoing figures show that in December, 1884, the stations along this road (dwellings

in Fayetteville and Bennettsville not being counted) had 605 houses, including dwellings, schools, churches, mills, cotton gins, &c. In one year and a half 635 new houses have been erected, or 30 more than the whole number standing in December, 1884, excluding, as already stated, dwellings in Fayetteville and Bennettsville. If Greensboro had been counted, it would probably have added at least 150 to 160 buildings to this number. Certainly this is indicative of very decided progress. Of the total number of buildings erected in this year and a half, 201 are for manufacturing purposes, against 235 as the whole number devoted to such prior to that time, or in other words the number of manufacturing enterprises has nearly doubled in that time. Schools and churches have largely increased also, the former having a little more than doubled. Of enterprises that have been established during this period, which were entirely new to that section, there are 2 agricultural implement factories, 1 steam brick yard, 1 cotton-seed oil mill, 1 edge tool factory, 1 ice factory, 1 machine shop, 1 mattress factory, 1 sausage factory, 5 sash, door and furniture factories, 1 tobacco flue factory, 3 tobacco prize houses and 5 wagon factories.

The progress along this road, as so graphically presented by these statistics, is certainly encouraging, and it illustrates very forcibly what is being done all over the South. As we stated last week, other Southern roads might follow the example of the Cape Fear & Yadkin Valley Co. in compiling such a report with great profit to themselves and to the whole South.

Condition of Blast Furnaces.

In its monthly report of the condition of the blast furnaces of the United States the American Manufacturer gives the following table for June 1:

Fuel.	In blast.		Out of blast.	
	No.	Weekly capacity.	No.	Weekly capacity.
Charcoal.....	54	9,384	161	16,796
Anthracite.....	123	35,136	87	18,909
Bituminous.....	131	74,750	99	33,412
Total.....	308	119,270	348	69,117

A comparison of this table with that giving the condition of furnaces last month, shows that there has been an increase in the number of furnaces in blast in each of the three divisions. The charcoal furnaces in blast have, during the month, increased from 47 to 54; there has been an increase of one in the number of anthracite furnaces blowing, and an increase of four in the number of bituminous. The weekly capacity of the furnaces in blast has also increased during the month in round numbers 9,500 tons, making the present weekly capacity of the furnaces in blast nearly 120,000 tons. Never before in the history of the country, says the Manufacturer, has there been so large a capacity of the furnaces blowing.

The returns for the 1st of June show that the stocks of pig iron are accumulating under this heavy production, though they are not near so great as they have been at certain periods in the past.

The Augusta (Ga.) Cotton Operatives.

In the reports of the proceedings of the Knights of Labor at their Cleveland meeting, it was stated that Rev. J. S. Meynardic, of Augusta, Ga., told a very harrowing tale of the condition of the cotton mill operatives at Augusta, Ga. These statements, as they appeared in the New York Tribune and other papers, were well calculated to seriously injure the business interests of Augusta, and feeling assured that they were incorrect, we wrote to the mayor, the chief of police and the mill presidents of that city for the truth of the matter. Without an exception, they deny the correctness of the statements reported to have been made by Mr. Meynardic. Mr. C. H. Phinizy, the president of the Augusta Factory, writes as follows:

OFFICE OF THE AUGUSTA FACTORY,

AUGUSTA, GA., June 6, 1886.

Editor Manufacturers' Record:

Your letter of 4th inst., enclosing an extract from the New York Tribune, giving "a tale of suffering and distress among the mill employees of Augusta, as told by Rev. J. S. Meynardic," and asking if the statements are true, is received.

Every statement in that extract except the one in relation to the "pass" system is absolutely false, so far as this mill is concerned, and I believe equally false as to the other mills in this vicinity.

I will reply to his statements seriatim as made.

He says: "In all the factories children of tender years are employed. He knows cases of five (5) year old babies at work, and in one factory sixteen cases where children under seven years are employed. These children work thirteen hours a day, and are compelled to eat their dinner, which consists of fat pork and corn bread, at such time as they can snatch a few minutes from their work; go barefooted in winter and summer."

There is but one child in our employment under ten years of age, and she is almost ten, and works in the spool room with her mother. The number of names on our pay roll varies from 625 to 700. We commence work at 6 o'clock A. M., shut down at 12 noon, resume work at 12.55 P. M., and stop at 6.30 P. M. On Saturday we stop at 4.30 P. M. This makes, exclusive of the fifty-five minutes allowed for dinner, eleven hours and thirty-five minutes of actual working time. Their diet may be fat pork and corn bread, I do not know, but their wages certainly authorize better food.

I have never heard of any disease from "overwork and exposure." If any exists, or has existed, it is due to imprudence and not necessity. Measles did prevail among the employes during the month of May, but have almost entirely disappeared. There may be a few cases of consumption, though I have been unable to find them; but the statement that there are "cases running up to hundreds of children under fifteen who are in the last stages of consumption," is without the semblance of truth. The general health of our employes is as good as that of the same class of people anywhere in the country.

He says "the average wages paid is 54 cents a day."

Our pay roll averages 85 cents per day per name, and thirty-three per centum of that pay roll is children between ten and fifteen years of age. Besides, a number do not work full time. The adults average over one dollar per day. There is not a single officer of any of the mills "interested in a store." There is an employe (not an officer) of the Sibley Mills who owns an interest in

a small retail store, and this seems to be the only foundation for such a statement.

His final statement, in the extract enclosed, is: "Our people are ripe for anything, and as soon as I get home I have no doubt that we will have a strike. As all the men in our city go armed, the result of a strike will be serious."

The law against carrying concealed weapons has been as strictly enforced in this community as in any in the State, or in the United States. The judge, having jurisdiction in such matters, has never failed to impose the severest penalty when opportunity offered, and the practice has been almost, if not wholly, broken up. Whether the operatives intend to strike, I can not say. If left to themselves I do not believe they would. Their wages, under all circumstances, are fair and reasonable; they have always been treated with consideration, kindness and liberality by the mill managers and owners, and there is no real grievance upon which a strike could be justly based. If any grievance should occur, it is only necessary to bring it to the attention of the managers, and, if well founded, redress will be had. If a strike does take place, it will be due to the influence of Meynardic and others like him, who are not laboring men. Until recently, for a period of about two years, all the mills in Augusta were run at a heavy loss. When considering the question during this depression, whether it would be best to shut down, one of the main reasons for not doing so was the suffering which would thereby be entailed upon the operatives. The mill owners preferred to lose money rather than have them suffer.

C. H. PHINIZY,
President Augusta Factory.

The statements of Mr. Phinizy are fully endorsed in the other letters. Mr. C. G. Goodrich, manager of the Shamrock Mills, writes as follows:

SHAMROCK MILLS,
AUGUSTA, GA., June 7, 1886.

Editor Manufacturers' Record:

In reply to yours of 4th inst., inclosing slip from New York Tribune, I will say that the statements therein, attributed to Mr. Meynardic, are utterly false. I have just read the reply that Mr. Phinizy, of the Augusta Factory, has written to you, and heartily endorse every answer he makes to the statements printed. Yours truly,

C. G. GOODRICH, Manager.

OFFICE OF CLARK & CO.,

AUGUSTA, GA., June 7, 1886.

Editor Manufacturers' Record:

We are in receipt of your favor 4th inst., enclosing extract from New York Tribune containing statements made by the Rev. J. S. Meynardic to the Executive Board of the Knights of Labor recently assembled at Cleveland. It is a remarkable statement, exciting no little surprise here, and we think could hardly be substantiated by the operatives whom he is supposed to represent. The Globe Cotton Mills run from 6 A. M. to 6.30 P. M., with an intermission at noon of 40 minutes. When any machinery is run extra time to "even up," extra pay is always allowed. We have never employed operatives under eleven years. One at this age now learning and upon light work receives the smallest wages we pay, \$1.80 per week. Adults receive from 60 cents to \$1 per day, according to work performed. Diet is a matter of taste and preference with them, eating what they have been accustomed to upon the farms where they were raised. Wheat bread is generally used; also fish and vegetables in variety. The small boys of some of our best citizens go barefooted in summer. In severe weather our operatives always wear shoes, but do frequently remove these when in the warm rooms of the mills from choice. Our mills are not kept steamed up to the same point as New England mills. There has been much sickness recently, principally "measles;" a few cases among our operatives. As to the prevalence of

consumption, we were not aware of it. Labor is generally improvident, and lays aside nothing for emergencies. We are interested in no store and give no orders. Our operatives we are satisfied do not go armed. The best of feeling exists between ourselves and every one of them. Unless over influenced by some foreign element, we have no fear of a strike.

With thanks for your kind interest and courtesy in permitting us to correct wrong impressions, we are very truly yours,

CLARKE & CO.

Mr. W. E. McCoy, president of the Riverside Mills, sends us a copy of a letter which he had written to the Boston Journal of Commerce, in which, after very fully answering all of Mr. Meynardic's charges, he adds:

"Our operatives are doing well, and if let alone there would be no trouble. There is not a mill in this city the officers of which are not ready to remedy grievances whenever appealed to, and be the wages high or low, they have always been sufficient to clothe and feed every one who would work. The mill hands have at least made a living, while for two years the stockholders have been compelled to not only to do without dividends, but stand by and see their surplus capital disappear week after week, when by stopping they would have saved money.

One mill in this city, at a directors' meeting, when the subject of stopping came up two years ago, the mill at the time having a handsome surplus, after some discussion, it was 'resolved to continue work, even at a loss if necessary, and until every dollar of the surplus was exhausted, rather than attempt to save by stopping the mill and throwing out of employment and depriving of work our worthy operatives, who served us faithfully when we received dividends; they are not responsible for the depression, and must not suffer so long as there is a dollar left.' And as agreed upon, the mill continued its operations until the surplus was very nearly exhausted, and at present prices for cotton, labor and supplies, goods remaining the same, it will require years for the owners to get back to their condition when the subject of stopping was first discussed.

Another mill, when almost bankrupted by the conduct of its president, was forced to shut down, having funds neither for cotton or wages. One of the directors, full of philanthropy, with his heart bleeding for the operatives thrown suddenly out of employment, himself assumed all the risk, advanced the money necessary, and for several weeks, until the stockholders could be called together and reorganized, stood in the breach and kept the wolf away. The operatives, appreciating this good man's work, met in convention, and with resolutions of thanks and fervent 'God bless him,' presented a gold-headed cane.

Mr. Maynardic must know of these matters, and yet he would impress the world with the belief that we are monsters, without regard to the comfort of the operatives.

Whenever the mills realize sufficient profits in manufacturing to pay dividends to the stockholders, who have for years awaited their turn, then the officers will be in a condition to listen to an appeal for an advance in wages from the operatives themselves."

THE consumption of cotton by mills in the United States for the nine months ended May 31, was 1,945,503 bales, against 1,536,110 bales for the corresponding time last year, showing an increase of over 400,000 bales. The increase in Southern consumption was 30,000 bales.

THE Cherokee Iron Co., of Cedartown, Ga., have blown in their furnace, which had been idle since February.

OUR BIRMINGHAM LETTER.

Birmingham as a Summer Resort—The Fishery Interests of Florida.

[Special correspondence MANUFACTURERS' RECORD.]

BIRMINGHAM, ALA., June 14, 1886.

Leafy June, which brings heat and mosquitoes to most far Southern localities, and at least heat to our Northern friends, is upon us, and two weeks of it have gone already. Yet the weather is pleasantly cool, and the people from abroad who are stopping temporarily here express surprise that they do not find our climate tropical! As a matter of fact, although Birmingham is pretty well down in the Sunny South, so called, it is by no means a hot place. If its latitude looks hot on the map, it has altitude to make up for it, and the summers throughout the district will average quite as cool and pleasant as they do in the heart of the Adirondacks. This is so well known at present that many families from the Gulf States, who formerly summered at Northern watering places, now make their homes in Birmingham during the hot months. I have already mentioned something in these columns of the advantages of Birmingham as a summer resort, and of its pretty lake, its mineral springs, swimming, boating, fishing, &c. These attractions would make the fortune of a place having none other. They are quite important here, for the reason that they furnish rest and recreation to people from all over the continent, who at the same time are investigating the mineral, timber and industrial resources and opportunities of the region. Capitalists and business men generally avoid the South in the summer time, but appear to make an exception in favor of Birmingham. All through the season, which is hot elsewhere, there is a continual stream of travel hither from all directions. I do not mean to state that we do not have warm weather, but the heat is so tempered by the mountain and gulf breezes that it is never excessive, as it is in the Eastern Atlantic cities for example, and the nights are deliciously cool the season through.

It cannot be said that business has been rushing during the past week, although a good deal has been booked in the iron line. There has been a decided improvement over the week previous, however. Freight rates on pig iron to Western points have been restored to the old basis, and that permits the shipment of our product to Chicago, St. Louis, Indianapolis, and so on. At those points the feeling is much improved since the settling down of the labor troubles, and orders are much better than for some time back. Accumulated stocks show a decided reduction, largely because the accumulation has been only for a few weeks and at a small rate. Eastern orders are freer and larger, and altogether the tone of the local pig iron market is satisfactory. Quotations are unchanged.

Matters in railway circles remain quiet. There are able-bodied rumors that the Kansas City, Fort Scott & Gulf people have bought out the Memphis & Birmingham company. If true, this would shorten the line of the former between Memphis and Birmingham to about 110 miles, and that could be built within a year with the 10,000 men that Captain Grant now says he expects to put on the construction. The extension of the Mineral Railway is nearly completed, and traffic will be opened before long. The Georgia Central work has been delayed, but arrangements are perfected to push it, and the Georgia Pacific extension is going on as rapidly as possible. Within a few weeks it is expected that these adventures, combined with the work on the plants of the Thomas, the de Bardeleben, and the Pratt syndicate plants, will make things livelier than they have yet been.

I notice that the remarks printed in the MANUFACTURERS' RECORD in connection with the Gulf fisheries are receiving very widespread mention in the Southern and Eastern press. It is not strange that some interest should be awakened on the question! Take the oyster fisheries alone: At the North the oyster farmers find it harder and harder every year to keep up their stock of merchantable oysters and at the same time to keep down the star-fish and secure a supply of seed. As I understand it, the beds of Maryland and Virginia, once the certain dependence of the North Atlantic oystermen, are showing indubitable signs of coming exhaustion. The immense and growing demand for the popular bivalve seems to outrun its ability to propagate, and the advisability of finding new seed beds is unquestioned in the trade. Now the Gulf shores have resources in this line quite beyond calculation. All the way from Pensacola to Barataria the shores and shallows are lined with as fine oysters as I ever tasted in Baltimore or New York; why should they not be used to reinforce the beds of the Middle States? Oyster canneries, too, and hundreds of them could find employment on the Gulf coast, and especially in the neighborhood of Pensacola. As for the fish drying project, concerning which I wrote a few lines last week, there is a good deal of discussion, and I learn, from half a bushel of letters, that a number of inventors are at work on the problem. Dried fish by the cargo is to be one of the Gulf products of the future, or American ingenuity is not what it has been thought.

Writing of the West Florida fisheries reminds me that they who believe the light of the Land of Flowers to have been extinguished by the frosts of last winter little appreciate the situation in or the capabilities of that region! Western Florida is one of the best localities for the production of fruits, berries and early vegetables of all varieties that could be imagined. As a stock country it is unexcelled anywhere! Perhaps few people know that Western Florida kept the Confederacy alive for a year and a half with its native beef, or that after the war the shipments to the West Indies were as high as 50,000 beeves per month! After a while the interest languished, and shrewd cattle men from Texas came over and bought up most of the cattle, but there has been a notable revival within a couple of years. Experiments made by enterprising citizens showed that by crossing the native stock with the Jersey breed a most excellent and hardy animal resulted, and now stock raisers from Colorado and other Western States are coming in and establishing ranches. Cattle and sheep alike, are free from disease in Western Florida, and are more cheaply raised than anywhere I know of. The succulent grasses and young cane of the district afford the most nutritious and acceptable food to flocks and herds, and, of course, shelter is unnecessary at all seasons. All along the lines of the Louisville & Nashville and Pensacola & Atlantic Railways there are places without number for the location of cattle and sheep ranches, tanneries, soap and candle works, and woolen factories. None of these industrial enterprises are in any way represented in Western Florida.

G. B. WEST.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

BUILDING NEW FURNACES.

Some Suggestive Facts and Figures Regarding the Iron Interests of the South.

A Revolution in Charcoal Iron Making.

[Special correspondence MANUFACTURERS' RECORD.]

CHATTANOOGA, TENN., June 12, 1886.

The question upon which there has been so much discussion among Northern iron producers—about the Southern furnaces losing money at the low prices at which pig iron has ruled for the last few years—seems about to be settled in a very practical way, in the fact of the large number of new furnace plants that are now being erected in what may be strictly called the Southern iron district. All of these plants are being erected by practical iron men, and most of them by men who are now or have been interested in one or more furnaces that have been erected and successfully run during the past 10 years. It hardly stands to reason that these men, who are considered among the most practical and shrewd of our business community, would again venture their money and energies in a business that, from their past experience, would not pay them a remunerative profit on both their time and money.

Among the new furnaces that are now in course of completion, or that are now commencing, may be noted those that are being constructed at or near Birmingham by de Bardeleben, by the Thomases of Pennsylvania, and also by Mr. Williamson. These have, of course, been referred to a number of times in the different iron papers of the country. Besides these, the Sloss and also the Mary Pratt are seriously considering the question of adding to their present plants at least one more stack to each.

Referring to the Tennessee district, the Tennessee Coal, Iron & Railroad Co. have concluded to add one more stack to their works located at South Pittsburg, at which place they have two already. Work upon this has already been commenced, and it is expected that it will be in operation early the coming year. This stack will be 20 feet in the bosh and about 75 feet high, and equipped with the best machinery that can be purchased and with Whitwell stoves. It is designed to make it in every way the most complete furnace in every respect that has ever been erected in the South.

Besides this, there has recently been a company formed, composed of Nashville, Louisville and New York parties, and among them are parties who were until recently connected with some of the largest and most successful furnace plants in the South. The purpose of this company is to erect two 20-foot bosh furnaces somewhere in Sequatchie Valley, with all the recent improvements in machinery, stoves, hoists, &c. The capital of this company is \$700,000 and is already subscribed, and available as fast as needed for the construction of these works. They have already several large tracts of coal lands, as well as ore lands, lying contiguous to their intended site, which will be reached by the construction of some short spur lines of track.

There have also been two other companies formed who have expended, one of them about \$60,000 and the other about \$75,000, in quietly buying up mineral and coal lands, and are intending to buy up considerable more, which, when their purchases are completed, will at once set about the erection of a furnace at each of their properties. These men are mainly parties who have had large experience in the production of pig iron and have means enough to build a dozen furnaces.

Their identity and plans are yet kept from publication, as they desire to obtain several valuable tracts yet before their plans are known. Looking farther west, in what

is known as the Middle Tennessee Iron Belt, there has been developed within the last 2 or 3 years what must prove a very interesting question in the production of pig iron. It has been known for many years that there exist in Middle Tennessee, up through Wayne, Lawrence, Lewis, Perry, Hickman, Dickson, Humphreys, Stewart and Houston counties, large deposits of brown hematite ores. In fact, long before the war, and reaching back into the early part of the present century, this section produced what was so favorably known as Tennessee iron, from which the famous boiler plate was made, with which most of the steamers running on the Mississippi and adjacent rivers were equipped, and the remark was common that not a single boiler made from this iron ever exploded. Some four years ago a company was formed and located themselves in the midst of this iron belt at a place called Goodrich, in Hickman county. The object of this company was to test the practicability of burning their charcoal in ovens so constructed that they would not only make a very superior article of charcoal, but also utilize all the other products that might be contained in the wood. The result has been eminently and completely successful. The cost of the construction of these ovens is very light, and the products are a greater per cent. of the very best of charcoal, ranging from 50 to 55 bushels to the cord of wood, and the by-products are alcohol, naphtha, pyroligneous acid and tar. The tar is used only as a fuel upon the ground, but the other articles are of such commercial value that the proceeds of the sales realize more than sufficient to repay the entire cost of the wood that goes into the ovens and all the trouble and expense of manufacturing all the material. The consequence is that the charcoal costs them absolutely nothing. To give the matter a thorough test the company erected, about two years ago, what is known as the Standard Furnace, at Goodrich, and have been running it successfully and with entire satisfaction up to the third day of last month, when they stopped for repairs. The company have also completed their plans for an additional furnace, and will also construct a railroad about 12 miles in length to reach their ore banks with greater facility than in the past.

The Warren Furnace, in Dickson county, has been running for some months on charcoal made in these ovens, and members of the same company are also now constructing another furnace at a place called Etna, in Hickman county. This furnace is now well under way, and they expect to be ready to blow in towards the latter part of the present year. The furnace will be 11 feet in the bosh and 55 feet high, with two Whitwell stoves 18x40 feet each, and will have what is known as the Weimer blowing engine. The fuel of this furnace will be exclusively the charcoal made from ovens, which the company are erecting in the immediate vicinity under much improved plans over those heretofore used. While the whole subject has been kept very quiet and but little said in reference to it, it cannot now be considered in any light as an experiment, but has been successfully and practically demonstrated, and cannot do otherwise than revolutionize the process and cost of producing charcoal pig iron. To the merits of this process can be added that the experiment of blowing the incondensable gas from the ovens into the furnaces as fuel was made, and the result was the reduction of the fuel from about 95 bushels of charcoal to the ton of pig iron down to about 50 bushels to the ton of pig iron.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the MANUFACTURERS' RECORD.

The Convict-Question in North Carolina.

[Special correspondence MANUFACTURERS' RECORD.]

MOOREHEAD CITY, N. C., June 12, 1886.

While resting here at the Atlantic Hotel, taking in the varied enjoyments of ocean and beach, living on delicious sea food, and otherwise disporting myself as one can nowhere else than at the sea side, I have found time to look through my note book and gather from it material for this letter. Some few years ago Mr. George W. Cable published severe criticisms upon the treatment of Southern felons. He was especially severe upon the contract system, under which felons were leased to individuals and corporations. In this attack he included North Carolina, and left an incorrect impression on the minds of his readers, which did the State a gross injustice. Availing myself of occasional hours of leisure, I visited the penitentiary, some of the field camps, and the convict farm, and found that in the treatment of felons, as in all other respects, the State authorities are governed by wise and humane laws, which they carefully execute. The penitentiary affairs are in charge of a commission of intelligent Christian gentlemen, appointed by the governor and responsible to him. The chairman of the board is Captain E. S. Stamps, president of the State National Bank of Raleigh, and a lawyer of prominence. This gentleman has been on the board some ten years, and has devoted much time and thought to its onerous duties. He has visited penitentiaries in other States, has attended the conventions of prison superintendents, and has sought information from all sources to guide him in his work. The system pursued here has been gradually developed under his supervision, and is as free from objection as any in existence.

This State is in area fully five times the size of Massachusetts. Until within a few years all that part beyond the Blue Ridge Mountains was practically cut off from the rest. The people then had few interests in common with their Eastern fellow-citizens. They felt the need of railroads, and urged the State to build them, that the mountains, the sea and the intermediate country might be joined together. There were not inducements enough to private corporations to undertake the enterprise. The cost of getting over the mountains and of maintaining a road among them would be enormous, while the population was too small to contribute much to support a railroad. But political (not partisan) considerations imperatively demanded the construction of a road, and finally it was determined to push ahead and to employ convicts in the work. This plan was approved by the people; it worked successfully, and at last Asheville and Raleigh were connected by rail. Since then the same road has been extended through those forests of the trans-montane country below Asheville, and a year hence it will be finished to Murphy, where it will meet a narrow-gauge road from Marietta, Ga., thus giving the mountain counties a new Southern outlet for their produce, while putting all their summer resorts within a day's ride of Atlanta. None of this great work would have been undertaken in our day had not the State had this convict labor at command. It was compelled to guard, confine, clothe and feed its felons, and to have kept them in idleness would have been cruel, while to have leased them out to private persons or corporations, or to have employed them at the penitentiary under contractors, would have been equally unwise and unpopular.

The State Board of Education owns immense tracts of swamp land that will eventually be sold for the benefit of the school fund. Before these lands can be marketed work must be done on them sufficient to show that they can be drained. The prison commissioners have loaned the labor of such gangs as were needed for this purpose, and have by just that much contributed to the ad-

vancement of education in the commonwealth. All these gangs of convicts, whether in the mountains, the swamps or the midlands, are comfortably housed, fed and clothed, and their health is cared for carefully. None are permitted to work whom the doctors pronounce unfit, and great care is exercised that none shall be overworked. Their rations are abundant, varied, and always of good quality. Official inspections are frequent, and are always carefully made; nothing is overlooked. The effect of this is to be seen in the convicts. A few weeks in one of the field gangs generally changes a man for the better physically. Regular hours for food, work and sleep are new and beneficial experiences to most of the prisoners.

To so much of the system as has been described there can be no valid objection. It benefits the State and the culprits in its care, while it reimburses the taxpayers indirectly by public improvements for a large part of the money expended in enforcing the laws.

Besides the convicts in the field camps, there are many in the penitentiary, and seventy-five on a farm called "The Oaks," seven miles from Raleigh. These last consist of six small boys that ought to have been confined in a workhouse or else severely flogged and sent about their business, forty-four women more or less infirm, and twenty-five old or crippled men. None of these are capable of doing the hard work of the field or the penitentiary gangs, so they are put in quarters at the farm and are employed in agriculture. There are 1,800 acres in this farm, of which somewhat more than 700 are cultivated. Last year the gang there raised 125 bales of cotton, 50,000 pounds of tobacco, besides all the corn, vegetables and garden sauce they consumed, and a considerable quantity sent to the penitentiary. In addition, they raised most of the forage for 20 mules.

The convicts' quarters are in a long, frame building, in the middle of a yard encircled by a high fence, the whole shaded by century old magnificent red oaks. The place is white-washed within and without, is well ventilated and is kept scrupulously clean. The sexes occupy separate divisions of the building. A superintendent, who lives in what was once the manor house, with seven assistants and guards, constitute the force in charge of the farm. The day before our visit there had been a heavy rain, leaving the land too heavy for working; so we found all the women and boys and several of the men in the tobacco barn engaged in bunching, stripping and sorting this comforting weed, preparatory to sending it to market. Few of them had ever done such work before they were sent up, but nearly all are now quite expert. They have therefore learned a good trade while in durance vile, that, when their sentences expire, will give them a better chance to earn a living than they had before their conviction.

The inmates of the penitentiary are variously employed. In the suburbs of Raleigh are a brick yard and a farm adjoining, on both of which convicts are employed. All the bricks used in the penitentiary, in the executive mansion, and in the new building for the library and for various State offices, have been made at the penitentiary from clay dug at that yard. On the farm a large share of the vegetable food consumed in the prison is grown. The striped garments worn by both sexes, the shoes they wear and other articles of apparel are made by the convicts. Here, as in all other parts of the system, a vigilant conscientious care is maintained over the physical welfare of the prisoners, and while no lax discipline is permitted, neither is brutality or cruelty. The old North State is a careful mother. She has her orphan asylums, her insane retreats, her hospitals for the sick, the deaf mutes and the blind, making provision in all for her white and colored people, and, while thus taking care of her unfortunate afflicted children, she watches over with wisdom and liberality her malefactors. Let the old State have the credit due her for punishing, thoroughly but wisely, all who break her laws.

The North Carolina press association will hold its annual meeting here next Thursday. This association is a body of energetic and brainy men, most of them young, who agree to disagree on many things except one, which is that this is the best State of the Union, that it has within itself all the natural elements of wealth, that it has a history of which they have a right to be proud, and that upon them rests the duty of contributing to its progress and advancing its prosperity.

B. S. P.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

The Mobile Electric Light Co., Mobile, Ala., will increase the capacity of their plant fifty per cent.

Henry Allen has received the contract to build the hotel for the Caldwell Hotel Co., Birmingham, Ala., previously reported.

It is stated that a company with a capital of \$1,000,000 has been formed at Woodlawn, Ala., to manufacture a patent box for a cotton gin for using ammoniated steam.

J. H. Jones, Talladega, Ala., will establish a shop for repairing machinery, and will also operate a foundry.

Richard Church has purchased a lot, 100x190 feet, at Birmingham, Ala., for a location for tool works.

S. B. Shivers will erect a rice mill at Selma, Ala.; the machinery has been purchased.

It is reported that John F. Stephens, of Rome, Ga., will establish boiler works at Birmingham, Ala.

James A. Allen, Birmingham, Ala., will erect a brick building, 27½x182½ feet.

The "Phoenix Building," Selma, Ala., will be rebuilt, A. J. Mullen having the contract for masonry and John G. Norris for wood work.

The Mobile Railway & Harbor Co. has been organized at Mobile, Ala., with W. H. Ketchum as president; H. Austill, vice-president, and John Mahon, secretary, to build a road 32 miles long from Mobile to Dauphine Island.

The Woodward Iron Co., Wheeling, Ala., will soon commence work on 150 new coke ovens.

ARKANSAS.

Mr. Norton, Fordyce, Ark., is erecting a large saw mill at Kedron.

Mr. Bennefield will build a three-story hotel, 75x140 feet, at Texarkana, Ark.

Water works are to be built at Pine Bluff, Ark. Mayor can give particulars.

The Central Continental Gold & Silver Mining Co., of East St. Louis, Ill., will erect some new machinery at one of their mines in Montgomery county, Ark.

R. C. Gentry, Antoine, Ark., will rebuild his saw and grist mill lately burned.

FLORIDA.

The contract to erect a school building at Pensacola, Fla., has been let to W. J. Berry at \$12,500.

Joseph Short and Mr. Phillips have erected a large saw mill at Bayard, Fla., and are building a railroad two miles long.

George W. Moyers, Winter Park, Fla., is in the North purchasing new machinery for his saw mill.

The Refrigerator Ice Works, Jacksonville, Fla., have put in new machinery, increasing their daily capacity from 10 to 24 tons.

It is reported that Palmer & Syser have ordered machinery for a carriage factory to be erected at Ocala, Fla.

Francisco & Augustine Grillo will start a cigar factory at Orlando, Fla.

John Lowe will start a cigar factory at Key West, Fla.

A \$20,000 hotel is to be built at St. Augustine, Fla.

The Columbia City Land & Lumber Co., capital stock \$50,000, has been incorporated at Jacksonville, Fla., by George F. Drew, William C. Augur, John Wareham and Thomas Newham, to manufacture and sell lumber and deal in land and merchandise.

W. H. Caulk will erect a three-story brick building, 153x80 feet, at Jacksonville, Fla.

B. Thebaut and Harry Lee have received the contract to erect a brick and iron building at Jacksonville, Fla., to cost about \$30,000.

GEORGIA.

Surveys are being made for the extension of the Columbus & Western Railway from Columbus, Ga., to Birmingham, Ala.

Thomasville, Ga., will decide by vote, June 30, whether or not to issue \$15,000 of bonds to build water-works.

It is rumored that an ice factory is to be erected at Fort Gaines, Ga.

Work has been commenced on the extension of the Americus, Preston & Lumpkin Railroad from Lumpkin to Hannahatchee, Ga., previously reported, by the contractors, W. H. Ferguson & Co., of Macon.

A. M. Snider, Atlanta, Ga., has received the contract to erect a \$8,500 college building at West Point.

W. O. Paxson is rebuilding his saw mill at Long View, Ga., previously reported as burned.

Newman & Grier will erect beer-bottling machinery at Brunswick, Ga. They contemplate erecting an ice factory next year.

The Morse Bridge Co., of Chicago, Ill., has received the contract for the iron work for the two new bridges at Rome, Ga., previously reported, at \$30,500.

The Warren Mining Co. are erecting stamp mills at their gold mine in Warren county, Ga.

A new court-house will be erected at Americus, Ga. Bruce & Morgan, Atlanta, are the architects.

J. T. Windsor & Co., Milledgeville, Ga., will establish a machine shop and probably a hub and spoke factory. Catalogues of machinery desired.

The Oglethorpe Hotel Co., Brunswick, Ga., previously reported, will receive bids until June 25 for the erection of a hotel to cost about \$60,000.

Martin & Payne have erected a saw mill near Toccoa, Ga.

KENTUCKY.

M. Edelmuth, Louisville, Ky., is rebuilding his cigar factory, reported in this issue as burned.

W. Henry Graddy is building a steam grain elevator at Versailles, Ky.

The Hogdenville & Elizabethtown Railroad Co. have organized at Hogdenville, Ky., with Jacob Hubbard as president; Thomas H. Hays, vice-president; J. W. Troyman, secretary, and B. J. Hargan, treasurer.

Whallen Bros. will rebuild their theatre at Louisville, Ky., recently burned.

Reid Brothers, Evansville, Ind., have received the contract to erect a school building at Owensboro, Ky., to cost about \$20,000.

The I. F. Stone, Sons & Co. has been organized at Louisville, Ky., capital stock \$100,000, to manufacture and deal in carriage materials, saddlery, &c. This company succeeds I. F. Stone & Co.

LOUISIANA.

Harry T. Howard has purchased the Crescent City Sugar Refinery at New Orleans, La.

MARYLAND.

It is proposed to build a railroad from Georgetown, D. C., to the Maryland coal fields, following closely the line of the Chesapeake & Ohio Canal.

The Eutaw Savings Bank, of Baltimore, is preparing to commence the erection of a large bank building.

S. F. Hess has recently started a brick yard at Woodbine, Md.

The Furniture Workers' Co-operative Manufacturing Association, capital stock \$50,000, has been incorporated at Baltimore by Ernest Baur, Frederick Hahn, John W. Lindner, Charles Bausch, Gustave Haas and others. The company will establish the factory reported last week as to be started by members of the Furniture Workers' Union.

The H. A. Ramsay Engineering Works, Baltimore, are adding an iron foundry to their works.

The works of the Green Hill Fire Brick Co., North East, Md., are being enlarged.

Charles E. Eck has repaired his flour mill at Taneytown, Md., and put in some new machinery.

The Chesapeake Gas Co., Baltimore, are erecting new buildings and machinery to double the capacity of their works.

Samuel C. Ridgeway will build a four-story factory on Fremont street, Baltimore.

The flour mill previously reported as to be built at Hagerstown, Md., by J. E. Rowland, will cost about \$12,000.

Maynard & Wethered, Stockholm street and Creek alley, Baltimore, have formed a partnership to tan and manufacture leather, &c.

The Chesapeake Belting Co., capital stock \$50,000, has been incorporated at Baltimore by John H. Phillips, Daniel Hockaday, John P. Ayers, John W. Sills and Stephen Gambrill.

MISSISSIPPI.

The Mattingly Milling Co., Vicksburg, Miss., will double the capacity of their flour mill this fall. The present capacity is 200 barrels every 24 hours.

Smith & Neely, Memphis, Tenn., have bought the cotton factory at Corinth, Miss.

Shaw & Davin, Birmingham, Ala., have received the contract for the machinery for the oil mill at Greenville, Miss., recently reported to be rebuilt by the American Oil Co., of New York.

A saw mill will be erected at Hattisburg, Miss. The machinery has been contracted for.

The Port Gibson Oil Works, Port Gibson, Miss., are being repaired.

The report that the Port Gibson Cotton Mills, of Port Gibson, Miss., were putting in machinery was premature. The company are negotiating with machinery builders, but have not yet made any arrangements.

NORTH CAROLINA.

C. M. McNett, representing the Thompson-Houston Electric Light Co., of Boston, Mass., is in Greensboro, N. C., negotiating for the establishment of a plant.

Collins & Turner have started a whiskey distillery two miles from Grover, N. C.

M. G. Baker has started a distillery four miles from Shelby, N. C.

Henry Hook, Boston, Mass., contemplates starting a steam laundry at Salem, N. C.

William H. Snow, Daniel A. Waters, William G. Vernon and James B. Roney have incorporated at High Point, N. C., the Modern Tobacco Barn Co., capital stock \$2,500, to build tobacco barns and manufacture the machinery used in them.

The Roberdel Manufacturing Co., Rockingham, N. C., are putting in their additional machinery (100 plaid looms), previously reported.

W. H. Kerr, Durham, N. C., is having the machinery manufactured for a bag factory, which he will erect next fall.

A \$12,000 court house will be erected at Webster, N. C.

SOUTH CAROLINA.

Sumter, S. C., has decided by vote to issue \$20,000 of bonds to enlarge their water works. Plans and propositions are invited. Marion N. Wise can give information.

The company reported last week as formed at Columbia, S. C., to build a street railroad, have organized as the Columbia Street Railroad Co., capital stock \$50,000, with J. S. Pierson as president; H. M. Pierson, vice-president; W. E. Lawton, treasurer, and E. Benedict, secretary.

The Columbia, Newberry & Laurens Railroad, previously reported as incorporated in South Carolina, has been organized with Mr. Moseley, of Prosperity, as president; J. C. Iredell, of Columbia, secretary and treasurer and James O. Meredith, of Newberry, general manager.

A corn and flouring mill will be erected at Walhalla, S. C., by Biemann & Holleman.

The contract for building the 55 miles of road of the Atlantic, Greenville & Western Railroad from Augusta, Ga., to Ninety-Six, S. C., has been let, to be completed by October 1.

TENNESSEE.

H. R. Walker, W. J. McMurray, J. B. Daniel, W. L. Horn and John A. Payne have chartered the Southern Fuel Savings Co., at Nashville, Tenn.

The Cumberland Natural Gas & Petroleum Co. has been incorporated at Nashville, Tenn., by J. H. Eakin, W. C. Collier, Walter M. Dake, W. M. Cassety and C. R. Handley.

The East Nashville Street Railroad Co., Nashville, Tenn., will spend \$15,000 in erecting stables, car sheds and a repair shop.

The Johnson City Furniture Co., Johnson City, Tenn., are enlarging their factory.

H. H. Ruble is erecting a flouring mill at Conkling, Tenn.

The report recently referred to that Howard Ashton, of Ohio, would move his milling establishment to Chattanooga, Tenn., is incorrect.

The Ohio Valley Railroad Co. has been chartered in Tennessee.

A steam laundry has been stated at Mount Eagle, Tenn.

The Montvue Land Improvement, Immigration & Labor Co., capital stock \$50,000, has been organized at Morristown, Tenn., with O. C. King, president.

The proposition of M. B. Neely, of Rockbridge, Ky., to build a large flour mill at Pulaski, Tenn., reported last week, has been accepted. The daily capacity will be 75 barrels.

LOCKWOOD, GREENE & CO. MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.,

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

Levi Langham, Nashville, Tenn., is replacing his saw mill with a new band saw mill.

It is stated that a company from Hickory, N. C., have made arrangements to start a cigar factory at Chattanooga, Tenn., with G. Cooper of that city as manager.

The steam bottling works of H. Kirchhoff & Co., Knoxville, Tenn., are being remodeled.

TEXAS.

The Missouri Pacific Railroad Co. has purchased 68 acres of land at Dallas, Texas, on which, it is said, they will erect a large depot, and probably transfer their shops to that point.

The Alvarado Street Railway Co., Alvarado, Texas, have commenced work on their road.

McCarthy & Corbitt, Washington, D. C., have received the contract for erecting the walls and roof of the new government building at Waco, Texas.

Thomas Trammell & Co., Sweetwater, Texas, will receive bids until July 1, for the erection of a stone or brick bank building.

J. H. Vosburg has received the contract to erect a city hall at Cleburne, Texas, to cost \$12,850.

Mexia, Texas, has decided by a vote to build water works.

J. M. Combs, Tell City, Ind., has been investigating the advantages of Jefferson, Texas, as a location for a furniture factory.

It is reported that water works are to be built at Brownwood, Texas.

A \$10,000 hotel is reported to be erected at Temple, Texas.

The Coleman Water Works Co., of Coleman, Texas, lately reported as being worked up, has been organized; capital \$16,000. Will commence building shortly.

VIRGINIA.

W. McDowell, superintendent of construction of the Southwest Virginia Insane Asylum, Marion, Va., will receive bids until July 1, for furnishing the heating, lighting and water supply for the asylum.

It is stated that the Richmond & Danville Railroad will build a depot, docks, &c., on the Virginia side of the Potomac at Washington.

V. D. Groner is having the plans prepared for a patent compress which he will erect at Norfolk, Va.

Andrew Bowling, Staunton, Va., has let the contract for an elevator of 50,000 bushels capacity, to be completed by September 1.

The capital stock of the company reported last week as being organized at Roanoke, Va., by P. Dorsey Sutton and others, to manufacture stone, will be \$30,000.

A grain elevator of 125,000 bushels capacity is to be built at Norfolk, Va., by the Norfolk & Western Railroad. It will be completed by October.

WEST VIRGINIA.

The Barnsville Manufacturing Co., Fairmont, W. Va., whose woolen mill was burned last week, (loss about \$15,000,) will hold a meeting June 19 to decide whether to rebuild or not.

Frederick Prentice, of New York, will bore for oil and gas at and near Huntington, W. Va., and will lay gas pipes through that city.

The Coal River Boom & Driving Co. has been incorporated at St. Albans, W. Va., by George W. Easley and Charles B. Trench, of Pearisburgh, Va.; P. H. McCracken, of Petersburg, Va.; J. M. Thomas, of Saltville, Va., and G. F. McComas and J. M. French. The company will build the boom at the mouth of Coal river, reported last week. The capital is not to exceed \$500,000.

The Standard Iron Co., of Wheeling, W. Va., reported as incorporated, is simply a recharter of the same company, made necessary to comply with a State law.

Will Ramp, of Parkersburg, W. Va., and E. L. Howe, of New York, will start a soap factory at Point Pleasant, W. Va.

BURNED.

Rentz & Johnson's saw mill near Hampton, S. C., wrecked by explosion.

The cigar factory of M. Edelmuth, Louisville, Ky.; loss \$40,000. Will be rebuilt.

The saw mill of Lawrence & Thompson, Rockmart, Ga., damaged \$1,000 by explosion. Will be rebuilt.

The woolen mill of the Barnsville Manufacturing Co., Fairmont, W. Va.; loss \$30,000.

Godfrey Lipe's saw and flour mill near Concord, N. C., wrecked by a flood.

William King's grist mill and gin in Cumberland county, N. C., wrecked by a flood.

The saw mill of Robert Bass, Kissimmee, Fla.

The flour mill of A. M. Stevens, Dyersburg, Tenn.; loss \$23,000. Will probably be rebuilt.

The mill and gin of Daniel Bine, the mill of William Cain, and the mill of Jacob Readon, near Fayetteville, N. C., have been wrecked by floods.

The mill of R. A. Baldwin, Curdsville, Va.

The mill of Elizabeth Surles in Sampson county, N. C., destroyed by a flood; loss \$2,000.

A Gold Mine.

AUGUSTA, GA., June 10, 1886.

Editor Manufacturers' Record:

Mr. James P. Verdery, of this city, and myself have purchased the Magruder Gold Mine near Washington, Ga., but some of the creditors, thinking that it was sold too low, have enjoined the assignee from making us titles. After this legal question is settled, the mine will be developed.

W. N. MERCIER.

BASON, N. C., June 10, 1886.

Editor Manufacturers' Record:

It is my aim to put up a tobacco factory at Simpsonville, S. C., but will use our old tobacco works for a while, at least until I get well started.

W. T. COMER.

Making Agricultural Implements.

BIRMINGHAM, ALA., June 5, 1886.

Editor Manufacturers' Record:

We are now placing machinery and hope to be at work at an early day. We will make not more than four pieces of goods; will be the sole manufacturers having the patents. Two pieces received 1st premium at World's Fair at New Orleans, 1884—Mercer's Combined Scraper and Cultivator, which straddles the row, doing the work of 4 hands and 4 horses by the old way of plowing, and Mercer's Perfect Cotton Chopper. These implements have been fully tested and highly endorsed by planters in a number of States. Many sold last season.

D. T. MARABLE.

A 125-Barrel Flour Mill.

PETERSBURG, VA., June 10, 1886.

Editor Manufacturers' Record:

We have given the contract for a 125-barrel flour mill to Messrs. Allis & Co., of Milwaukee, which is to be completed by September 15, 1886. UPPER APPOMATTOX CO.

An Artificial Stone Company.

ROANOKE, VA., June 9, 1886.

Editor Manufacturers' Record:

We are forming a company here with a capital of \$30,000, in shares of \$100 each, for the purpose of manufacturing stone and marble for building, paving, and all other purposes for which these materials are used.

P. DORSEY SUTTON.

Adding Machinery.

ROCKINGHAM, N. C., June 14, 1886.

Editor Manufacturers' Record:

We have purchased (and are receiving a part of the looms,) our one hundred plaid looms.

ROBERDEL MFG. CO.

To Build a Railroad.

SAVANNAH, GA., June 7, 1886.

Editor Manufacturers' Record:

I have closed a contract for the building of a road to Tybee, under the charter of the Savannah & Tybee Railway Co., granted by the last meeting of our legislature, the road to be completed by April 1, 1887. It will have 50 lb. rails and be standard gauge.

D. G. PURSE.

A \$50,000 Woolen Mill.

ATHENS, TENN., June 8, 1886.

Editor Manufacturers' Record:

The Athens Woolen Mills, a chartered stock company with capital stock of \$50,000, has been organized, and work on buildings will begin at once. We will be ready in a short time to give orders for machinery, &c.

A. C. ROBESON, Supt.

Machinery Wanted.

CALVERT, TEX., June 5, 1886.

Editor Manufacturers' Record:

We have organized a water, ice and electric light company in our town, and the city has granted us a franchise for 25 years, free of taxation. We are getting ready to commence operations. Our authorized capital is \$50,000. We are in the market for supplies. J. A. Foster is secretary. L. T. FULLER, President C. W., I. & E. L. Co.

A 600-brl. Flour Mill.

NASHVILLE, TENN., June 11, 1886.

Editor Manufacturers' Record:

We stop our present mill (300 brls. capacity) on June 15 to enlarge it to 600 brls. capacity and make every improvement known to date. This enlargement will give us the finest and largest establishment in our line in the South.

NASHVILLE MILL CO.

Added New Machinery.

LITTLE ROCK, ARK., June 8, 1886.

Editor Manufacturers' Record:

We have greatly enlarged our factory and have added a number of improved wood-working machinery tools; in addition to this, we have put in a lumber yard, and now have all facilities for working wood.

R. McMILLEN & CO.

Will Rebuild.

HOFFMAN, N. C., June 9, 1886.

Editor Manufacturers' Record:

We anticipate rebuilding our saw mill promptly, and hope to be running in about two weeks.

A. B. PEARSALL & CO.

New Ice Factory.

COLORADO, TEXAS, June 12, 1886.

Editor Manufacturers' Record:

I have started an ice factory of two tons capacity. The machine was made in Cincinnati; it is an absorption machine. Everything is working well.

J. M. BASSETT.

Hardwood Saw Mill.

ARKANSAS CITY, ARK., June 12, 1886.

Editor Manufacturers' Record:

We are about to erect a large saw mill for hardwood—oak, ash, hickory, &c. This is a good place for a furniture factory, but we have no present intention of going into that line of work. This is an enterprise wholly owned in Boston, Mass. H. M. CROSS, Sec.

Enlarging Works.

NORTHEAST, MD., June 14, 1886.

Editor Manufacturers' Record:

We are enlarging our works with a building 40x50 feet. GREEN HILL FIRE BRICK CO.

Will Build an Elevator.

STAUNTON, VA., June 12, 1886.

Editor Manufacturers' Record:

I propose erecting at once an elevator with a capacity of 50,000 bushels, to be operated in connection with my mill; have already let the contract, and hope to have it ready for use by 1st September.

ANDREW BOWLING.

MARION, S. C., June 12, 1886.

Editor Manufacturers' Record:

I would like to get the name of some house that manufactures cotton gin saw sharpeners.

EMERSON MCDUFFIE.

Will Build Water Works.

COLEMAN, TEXAS, June 10, 1886.

Editor Manufacturers' Record:

The Coleman Water Works Company, organized June 8, 1886, capital \$16,000, will commence work as soon as chartered.

MCCORD & LINDSEY.

Shuttle Block Factory.

WILMINGTON, N. C., June 12, 1886.

Editor Manufacturers' Record:

Mr. Gilbert H. Greene, of this city, and I will establish a stave and shuttle block factory about July 1. Business will be conducted under the firm name of Fowler & Greene. We have boiler and engine, but will need other machinery and belting, &c.

JNO. J. FOWLER.

KNOXVILLE, TENN., June 15, 1886.

Editor Manufacturers' Record:

I am remodeling the steam bottling works of H. Kirchhoff & Co., recently purchased from J. W. Hart; cash capital \$12,000, stock on hand \$8,000. The Knoxville Brewery starts up again soon with new directors and cash capital all paid in—\$100,000.

O. G. HILLE.

Enlarging Tobacco Factory.

THOMASVILLE, N. C., June 13, 1886.

Editor Manufacturers' Record:

We will build an addition to our factory, at a cost of about \$2,500. Contract is let and work begun. Will need yet to be purchased hoisting machinery and warning apparatus.

STAPLES & SHIPLETT.

Ice Machinery Wanted.

PIEDMONT SPRINGS, N. C., June 9, 1886.

Editor Manufacturers' Record:

The Piedmont Lumber, Ranch & Mining Co. desire to know where they can get the best machine for making ice for family use.

JOHN L. MARTIN, Treas.

Rebuilding Mill.

LONG VIEW, GA., June 10, 1886.

Editor Manufacturers' Record:

My saw mill was burned on May 15. I am now rebuilding, and will be ready to start up in one month from the time of the burning.

W. O. PAXSON.

Building a Railroad.

DUNHAM, ALA., June 10, 1886.

Editor Manufacturers' Record:

I have the contract to build 30 miles of the Montgomery & Florida Railroad.

B. B. MCKENZIE.

[FOR OTHER LETTERS SEE PAGE 654.]

Life-Saving Appliances.

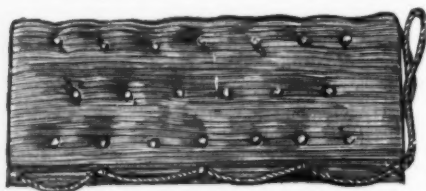
A revolution in life-saving appliances has been recently effected by the introduction of an entirely new material, so remarkable in its qualities for such purposes that it is almost incredible until a practical test is made. It is known as Alaska Down, and is made from deer and antelope hair by undergoing a thorough process of renovating, deodorizing and extracting the animal oil, reducing its weight one-third—giving it a lightness, sweetness and buoyancy unequalled, it is said, by any other known product or material. This recent process overcomes the only obstacle that has heretofore prevented its widespread use for mattresses, cushions, jackets and upholstering as life-saving auxiliaries.



BUOY.

Its merits have been passed upon and approved by the U. S. Supervising Board of Inspectors. It requires only ten pounds buoyancy to support a live person in the water, which is the capacity of one pound of deer hair. No article is made for that purpose containing less than 2½ pounds, which is enclosed in water-proof material, so that its buoyancy is not impaired at all, as denoted in the committee's report—thus sustaining 30 to 40 pounds indefinitely. Even if the covering be cut or damaged, it will retain its buoyancy.

Fig. 1 shows the Alaska Down buoy. The lightness and softness of this buoy ren-



MATTRESS.

der it perfectly safe to be thrown to any one in the water, without danger of stunning or killing them if it should accidentally hit them. It may be attached to a frame work, making a superior life-raft.

Fig. 2 shows the mattress, which is soft, light and elastic. Pillows and bolsters made of the same material weigh about one-third as much as curled hair. Boat cushions made of this material are superior to curled hair, being soft and comfortable, and possessing four times the buoyancy of cork, covered with a beautiful dark imitation leather, combining a luxuriant cushion and superior life-float. These cushions are made to fit any



CUSHION.

shape of seat or bench. A specialty is made of fitting yachts with mattresses, with life-lines attached, upholstering seats with cushions, and placing the material where it not only beautifies, but furnishes an article of practical use, and places the means of rescue within reach when required. In case of capsizing, they afford support until rescued.

Comparative tests recently made were as follows: Cork buoy, weighing 9 lbs., supported 33 lbs. Buoyancy, 3½ to 1 lb. Cork jacket, weighing 7½ lbs., supported 30 lbs. Buoyancy, 4 to 1.

The Alaska Down buoy, weighing 5 pounds, supported 64 pounds. Average

buoyancy, 13 to 1. Deer or antelope hair life jacket, weighing 2½ pounds, supported 30 pounds. Buoyancy, 12 to 1. Solid Alaska Down cushions, weighing 3 pounds, supported 50 pounds. Buoyancy, 16 to 1. The apparent discrepancy between 5 pounds supporting 64 pounds, and the 3-pound cushion holding up 50 pounds, is caused by the latter being packed in extra tight and hard, making it quite solid.

This company has supplied the following pleasure craft with their famous Alaska Down cushions, etc.: Yachts Whisper, Daisy, Jewel, Mona, Albatross, Rosalie, Woodward & Stillman's steamer Wanda, Jay Gould's Atalanta, W. H. Starbuck's steamer Tillie, Maggie, Madge, Priscilla, Puritan, Whim, Ed. Stokes' steamer Fra Diavola, Arab, Florida, Sierra Nevada, Zerlina and Wendell Goodwin's yacht.

The following voluntary letter gives the result of a practical test of the cushions:

GRAMMERCY BOAT CLUB ON THE HARLEM, NEW YORK, July 9, 1885.

To F. P. Marsh, Superintendent:

DEAR SIR—On returning from our annual dinner at College Point, L. I., June 21, and, while crossing Flushing Bay, with a very heavy sea running, our four oared barge swamped with seven persons on board,

Boiler and Engine.

The Porter Manufacturing Co., Syracuse, N. Y., manufacture a tubular boiler which they call the "New Economizer" and which has several important features. A large fire flue answers the purpose of an enlargement of the fire box. The flame passes into it bodily, thus enabling the gasses to become ignited before passing into the small return tubes.

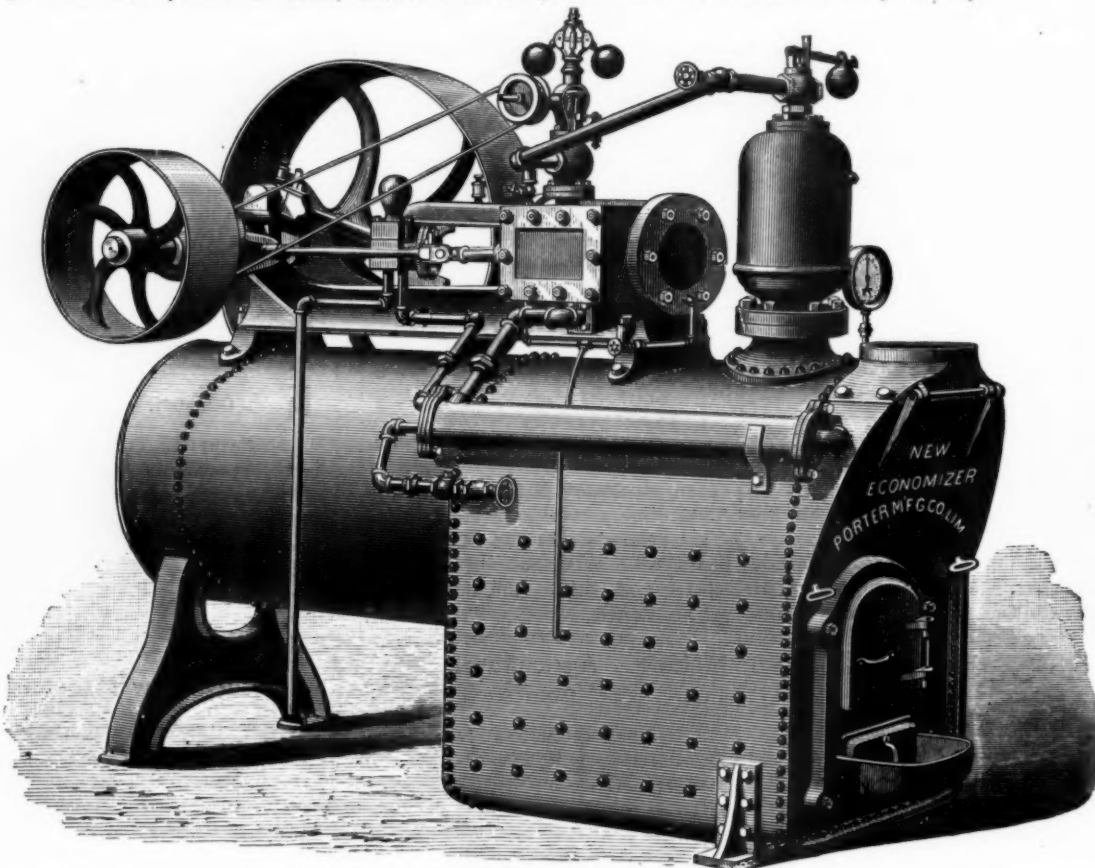
The fire is entirely surrounded by water, even the front itself being heating surface.

There is no obstruction to the draft; it steams very rapidly.

The combustion chamber is surrounded by a water jacket, which protects the shell from the intense heat to which it is subjected when straw or other light fuel is used. It also gives an additional heating surface of from one to three horse power, and aids very much the rapid generation of steam.

It emits very few sparks; the returning of the flames through the small tubes compels the deposit of the great body of sparks in the chamber at the rear.

It has another element of safety in the fact that the crown sheet is guarded by the rows of tubes over it, and should the water



NEW ECONOMIZER BOILER AND CENTER CRANK PORTABLE ENGINE.

several of whom were unable to swim. The Alaska Down cushions (with which all our boats are fitted) did their duty by saving all, and more than fulfilled all you had claimed for them. I shall always be glad to say a word in their favor.

Very truly yours,

M. L. SUTTON, Capt. G. B. C.

For further information or prices of this life-saving apparatus, address the Life-Saving & Steamship Chair Co., 25 Waverly Place, New York city.

WE acknowledge receipt of two boxes of peaches from Tryon City, N. C.,—one from Mr. Geo. A. Smith and one from Mr. John Garrison. Tryon is the center of a country that promises to become a very important producer of early peaches and other fruits. A number of large orchards have lately been put out, and the prospects are favorable for the development of an extensive fruit-growing industry at this place. The abundance of fruits and berries throughout the country tributary to Tryon, the cheapness of labor, lumber, &c., make an excellent opening there for a canning factory.

get low, by carelessness, the tubes being first uncovered, are first liable to give way before the water gets low enough to leave the crown sheet unprotected.

The cut shows the New Economizer boiler on skids, with a center crank portable engine. This engine is perfectly balanced, and vibration, even when laboring the hardest, is reduced to a minimum. These engines can be run very rapidly and be put on a separate foundation and used as stationaries. The workmanship and material are first-class.

Information, as to the various styles of boilers and engines made by this company, may be obtained from their catalogue, which is a very handsome one.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

The Prosperity of the South.

[Special correspondence MANUFACTURERS' RECORD.]

ATLANTA, GA., June 9, 1886.

I have been much interested in the statement made by some journal some time ago as to the growing poverty of the farmers in Georgia, and have made numerous inquiries in various localities as to its truthfulness. In DeKalb, one of the greatest farming counties we have, a lady who has been a widow for several years, and who owns one of the finest and most valuable farms in that whole section, previous to the death of her husband a few years ago, had never been able to make expenses, and each year (even with the most judicious management) expenditures were heavier and income smaller. This lady now not only makes expenses each year, but has been able to pay off quite an amount that was due on the place, as well as make some needed and valuable improvements to her farm. She has a fine crop prospect and more fruit than she can market.

A letter just received from Whitfield, from a farmer, says: "I will do better financially this year than since the war, notwithstanding the loss of my fruit crop."

In taking a trip through to Athens last week, I noticed grain looked booming, and farmers all seemed encouraged and in good spirits. In this little classic city of Athens, that has been among the first to battle with King Alcohol, all manufactures are ahead of last year, and upon examining the assessor's valuation, which is very low, I find a steady increase in investments. The Georgia and Princeton Manufacturing Companies started work January 1, 1886, having been closed for 18 months, the Georgia having a tax valuation of \$120,000 and the Princeton \$56,340. The tax books show \$56,600 in water works, \$5,000 in ice works, \$20,000 in gas works, \$7,000 in cotton-seed oil mill, \$10,000 in an elevator mill, \$5,000 in Oconee Mill, \$11,000 in J. H. Rucker's cotton compress, \$8,000 in W. B. Thomas' cotton compress, and there are numerous other establishments which I have not time to give. All of these valuations are low, and the property has gone up in the last few years. Col. Gantt, the editor of the Banner Watchman, one of the ablest papers in the State, and who has acted as mayor there, says Athens, in the immediate city as well as in the county of Clark, in which it is situated, is in a more independent and prosperous

condition than for many years. This is a nut for anti-prohibitionists to crack, as the temperance people affirm that prohibition has helped much to bring about this prosperity. I visited a farm in Whitfield, near Dalton, a few months since that was bought two years ago for \$15,000 and sold recently for \$35,000, having in the meantime produced two good crops, as well as several hundred dollars' worth of fruit.

The South was never in a more flourishing condition, and one needs only to take a trip through it to be convinced of that fact. Every year we are becoming more independent and looking more to home productions, as well as patronizing home institutions, which, before the war, was a practice not known among us.

I propose in my next letter to show the readers of the MANUFACTURERS' RECORD the increase of property in and near Atlanta, the new buildings erected, the new manufacturing started, and the increased prosperity of our farms.

E. B. A.

turing than this can be found in the South. We are situated at the head of navigation. New Orleans, Memphis, St. Louis, and in fact all the larger cities situated either on the Mississippi and its tributaries or on the coast, can be reached from here by water. You can at once see our importance as a point for manufacturing. Texas, with its unlimited domain, can be reached by rail from here, and so can Mexico.

We have here a large cotton-seed oil mill, a compress, foundry and wagon factory; the latter only makes logging wagons, however.

No point can, I believe, be found where a cotton factory, iron manufactory of every kind and furniture factory would pay a more handsome dividend than here. Sweet gum can be had here for \$7.50 to \$10 per thousand, sawed as wanted.

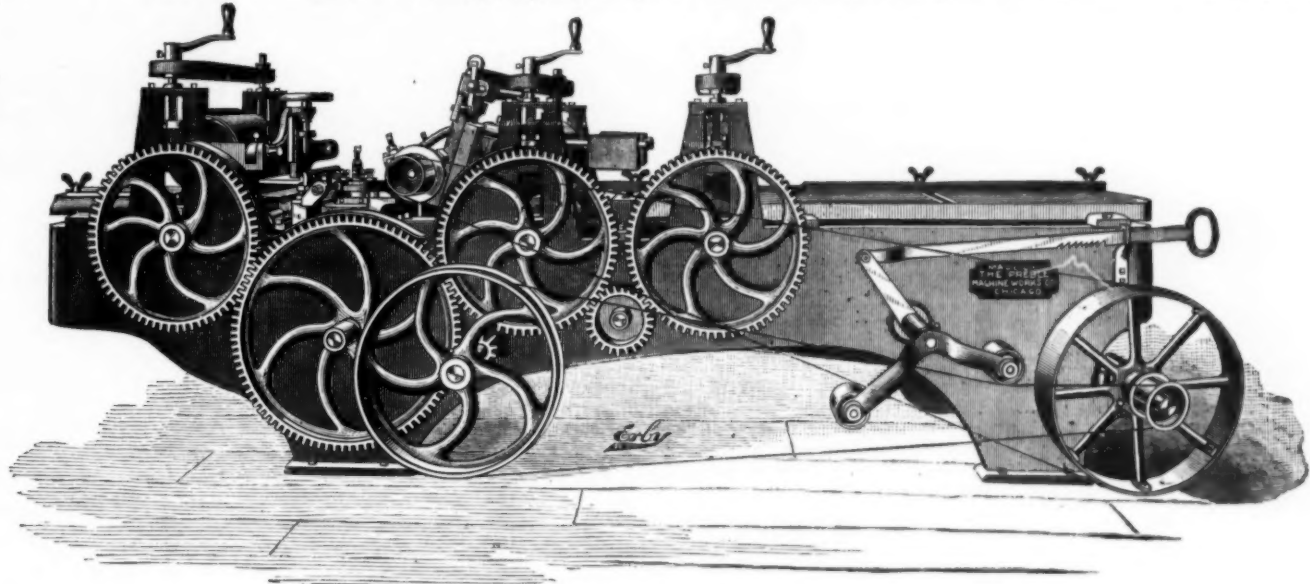
Lands and homes can be had here cheap; expense of living is low; vegetables grow luxuriantly here; consequently, the factory

piece. The journals of the top cylinder are 2 3-16 inches in diameter, running in 11-inch boxes lined with best genuine Babbitt. The lower cylinder also has large bearings, and is fitted with a patent "eccentric device" for adjusting to the cut, etc. This obviates the necessity of crawling under the machine with a wrench and "tinkering" with set screws when change of "cut" is required, the hand wheel shown on the side of the machine being connected with an eccentric shaft which moves both boxes at the same time and exactly the same distance, preventing the cylinder from getting out of line. After adjustment is made, both boxes are firmly clamped into place by one bolt, which is also accessible from same side of the machine. All this may be done without stopping the machine.

Both spindles are movable across the bed of the machine, to insure uniform wear of bed and knives when working on narrow

Congressman Tillman.

The Baltimore MANUFACTURERS' RECORD publishes a couple of columns of extracts from an open letter written by the Hon. George D. Tillman, of South Carolina, to Prof. R. Means Davis, Chairman of the Free Trade Association of South Carolina, who had urged him to deliver a public address on the burdens of the tariff. Mr. Tillman is a man of excellent character, having served in the legislature both before and since the war, and in Congress several terms, and in the army during the war, and in Constitutional Convention, State Executive Committee, etc. He is a cotton planter, 60 years old, and a very useful member of Congress. His letter to Prof. Davis is the best thing he ever wrote, and would give him national fame as a man of uncommon powers of perception



IMPROVED PLANER AND MATCHER.

The Advantages of Jefferson, Texas.

JEFFERSON, TEXAS, June 11, 1886.

Editor Manufacturers' Record:

Mr. Priest, of Decatur, Ill., will put up a rope and twine factory for the purpose of utilizing the waste cotton which is naturally found where much cotton is handled, and such cotton as will not do for shipping to Eastern factories. I am of the belief that from this factory will spring a large cotton factory, because there is not in Texas a better point for one than this. Our annual receipts are 10,000 to 20,000 bales. The same party submitted a proposition to our people to build a street railway here 2 miles in length. The proposition was accepted, and I understand the material will be shipped from Decatur, Ill., very soon.

A gentleman from Fell City, Ind., was here a few days since prospecting for a location for a large furniture factory. After making a very close investigation as to timber shipping facilities and other advantages, he was satisfied that this is the point for such an enterprise, and will so report to his people on his return.

In connection with our unlimited supply of timber which can be reached by water, we have iron ore here superior to any in the South, and I will say in the United States. Stoves, hollow-ware, car wheels, plows, &c., can all be made of this iron without any admixture. The supply is inexhaustible and easily gotten at, as much of it is surface ore. Enough timber can be had here to make all the charcoal iron that one would want, for we are in the midst of the timber belt of Northeast Texas. We have five saw mills around us, all getting their supply of logs up and down the various streams upon which they are located. This industry of itself will last for years, as the supply can be drawn for a distance of 40 to 60 miles, perhaps farther. No better point for manufac-

hand can live at a small cost. Our city is very healthy, water is good, society excellent, and we have fine churches and good schools. Our people are hospitable and will gladly welcome those who come among us to live.

I omitted to say that we have every indication of coal, and so firmly do our people believe it, that we are now in correspondence with parties preparatory to boring for it.

W. T. ATKINS.

Improved 14-inch Planer and Matcher.

The cut shown herewith represents the new planer and matcher manufactured by the Preble Machine Works Co., 38 and 40 Monroe street, Chicago. This is a machine especially adapted for heavy and fast work, which it is claimed to do without any perceptible vibration, even on the heaviest work. It will dress four sides of lumber 12 inches and less in width by 3 inches and under in thickness, and will surface one or two sides 14 inches in width.

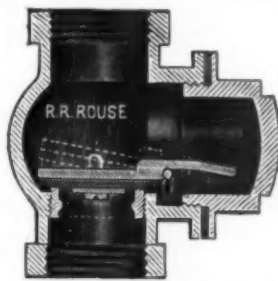
The feed rolls are six in number, driven by improved expansion gearing. They are very large (9 3/4 inches) in diameter, giving a rapid feed with a smaller number of revolutions, and reducing the wear on the gears and journals to the lowest point. They also give a greater bearing surface on the lumber being fed, and more easily surmount any inequalities on the lumber,—snow, ice, etc. The expansion gears are 7 inches in diameter to the pitch line, with 2-inch faces, the idler gears being brass "bushed." The large roller gears on opposite side of the machine have 2 1/4-inch faces and are very heavy, and are said to be capable of withstanding the greatest strain. The "coupling up" of the expansion gears gives an easy, self-acting adjustment to varying thicknesses of lumber.

The cylinders are made from steel forgings, journals and heads being all in one

stock, the same crank being fitted to use on both screws.

Self-Adjusting Check Valve.

Mr. R. R. Rouse, Indianapolis, Ind., has recently invented and is manufacturing a self-adjusting check valve, a representation of which is shown in the cut below. It can be used as a vertical or horizontal check valve. It can be opened at the side at will, and be taken out in a moment. It has a ground seat and clapper. Can be used for hot water or acids by removing the packing from valve clapper, thus allowing the two brass surfaces to come together. It is claimed that the valve cannot get out of



SELF-ADJUSTING CHECK VALVE.

place as it slips in at an opening in a slot or groove, then drops down to its proper place, where it works as a hinge, the stem at end of the dotted lines in cut allowing it the proper distance to travel, when the cap at the side is screwed in, thus the bearing comes equal on valves all around caused by this slotted adjustment. It has an adjustable valve seat that can be taken out and re-ground. The valve is balanced so as to work like a poppet valve.

If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$3.00 a year.

and reflection even if he had never done anything else.

He is not an extreme protectionist, but he absolutely repudiates the free trade policy, and says that he prefers a tariff for revenue with incidental protection, which he declares "has always been the doctrine of Jefferson, Madison, Jackson, and the other fathers of the Democratic party." He believes in a moderate tariff, chiefly on imported articles, such as are produced in whole or in part in this country, supplemented by an income tax. He infers that Prof. Davis and his associates propose to abolish tariff and provide revenue by direct taxation, and does not attempt to conceal his feelings on that point. He sees that the usual belief that the great States of the West are exclusively agricultural, and consequently for free trade or low tariff, is a mistake, and he realizes that they are becoming more and more interested in manufactures.

This view of the matter is amply justified by the fact that these States are sending fewer free traders and more protectionists to Congress as the years roll on. "Then why," he inquires, "oppose the inevitable? It is as true now as it ever was that whoever spits against the wind spits in his own face." But he does not rest his case on the practical aspect; he does not waste time in contending that parties and politicians should not occupy extreme positions insusceptible of defense, but goes straight to the merits of the case, and with an incisive vigor and force of language not often equaled by Congressional orators he shows how strong is his ground. On this head we make a quotation, chiefly for its own sake, but also because it is an indication of the tendency of opinion in the State and in the South.

*** New Orleans Picayune.

THE Eagle & Phenix Cotton Manufacturing Co., of Columbus, Ga., have declared a semi-annual dividend of 3 per cent.

Will Double Mill.

VICKSBURG, MISS., June 14, 1886.
Editor Manufacturers' Record:
 Our present capacity is 200 barrels meal in twenty-four hours. It is our intention to double the capacity this fall.
 THE MATTINGLY MILLING CO.

Rebuilding.

LOUISVILLE, KY., June 12, 1886.
Editor Manufacturers' Record:
 I am now rebuilding my cigar factory at 332 and 334 West Jefferson street, and expect to be at work again in a few days.
 M. EDELMUTH.

The Birmingham Bridge Co.

BIRMINGHAM, ALA., June 10, 1886.
Editor Manufacturers' Record:
 We have formed a company (neither chartered nor limited) to be known as the Birmingham Bridge Company, to operate the Birmingham Bridge Works & Bolt Factory, of which C. W. Wood, C. E., is general manager; T. L. Philips, superintendent, and F. C. Osborn, C. E., consulting engineer. Our proposed line of business is to cover wrought iron work in every department, from bridges, girders, roofs, buildings, etc., to bolts, nuts, rivets, truss rods, etc. Our address is P. O. box 819. C. W. WOOD.

Building Saw and Planing Mill.

ARKADELPHIA, ARK., June 10, 1886.
Editor Manufacturers' Record:
 We are now erecting a large saw mill and planing mill near this place, at the junction of the Ultima Thule, Arkadelphia & Mississippi Railroad with the St. L., I. M. & Southern; this is all in addition to the saw mill we now have in operation and use in constructing said railroad.
 ARKADELPHIA LUMBER CO.

A Grain Elevator at Norfolk.

ROANOKE, VA., June 12, 1886.
Editor Manufacturers' Record:
 The Norfolk & Western Railroad will build a grain elevator on their pier No. 1 in Norfolk harbor. The elevator to be completed this fall, with a capacity of 125,000 bushels, and so arranged that additional storage-room of like capacity (making total capacity of 250,000 bushels) can be built, should the movement of grain require such addition. CHAS. G. EDDY, Vice-President.

TALLADEGA, ALA., June 9, 1886.
Editor Manufacturers' Record:
 I will establish a shop to do general repairs on gins, engines and all kinds of farming machinery, and will also do a foundry business. Will make castings for gins; also pulleys and hanger castings, and all kinds of repair castings.
 J. H. JONES.

Bids Wanted for Water-works.

SUMPTER, S. C., June 13, 1886.
Editor Manufacturers' Record:
 The town has authority to issue \$20,000 of bonds at six per cent. interest, to equip a fire department and furnish a water supply. The town is now open to propositions as to style of works to supply the water. Our town is three-quarters of a mile in each direction, measuring from the center, and we have 3,000 inhabitants.
 MARION N. WISE.

Will Build Water-works.

PINE BLUFF, ARK., June 12, 1886.
Editor Manufacturers' Record:
 Our city will build water-works this year.
 H. KING WHITE.

Splendid Tobacco Farm FOR SALE IN NORTH CAROLINA.

Sixty acres of fine tobacco land with splendid two story house and beautiful yard, fronting about 350 feet on the main street. In a town of 150 to 175 population, 15 miles from a city of 15,000 inhabitants and one of 5,000. The house is 300 yards from depot. There is a large stable, carriage house, corn crib and other out-houses, including 3 tobacco barns and 2 tenant houses. Good well of freestone water; 400 peach and apple trees, and 425 grape vines, all in full bearing. Splendid climate; healthy location. The buildings alone cost \$3,500. Will take \$2,500 cash. Special reasons for selling. Address J. P. R., care MANUFACTURERS' RECORD.

For Sale, Cheap.

4,000 ft. 3 in. & 52 ft. 6 in. Gas Pipe.
 Has been used only 6 months for conducting water. Will be sold in any quantity.

Geo. H. Cornelson,
 Orangeburg, S. C.

FOR SALE.

AN ESTABLISHED BUSINESS and a splendidly built two-story brick building erected expressly for it. Fine opening for a man of small means, who wants to engage in the manufacturing, repairing and selling of buggies, wagons, plows, etc. Reason for selling: Desire to engage exclusively in the manufacture of farm wagons for the wholesale trade. Apply or write to Owensboro Wagon Manufacturing Co., Owensboro, Ky.

NORTHERN AND ENGLISH MARKETS**SOUTHERN REAL ESTATE**

Agricultural, Timber, Grazing and Mineral Lands; also Manufacturing Properties.

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Member of the Real Estate Exchange and Auction Room, (Limited.)

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This business furnishes favorable opportunity to SOUTHERN SELLERS, whilst it brings reliable INVESTMENT TO CAPITALISTS by a system that refuses to handle property that will not submit to examination and report by experts of this office; thus providing in the best markets full, skilled and guaranteed description of distant offerings. Expert examiners at various Southern points. Circulars on application. Correspondence invited.

Mention Manufacturers' Record when writing.

65-HORSE-POWER HORIZONTAL, STATIONARY STEAM ENGINE FOR SALE!

Second-hand, but warranted good as new. Will be sold cheap for cash. Address,
 W. C. BUCHANAN, Lancaster, Pa.

WANTED

As a Partner or at a salary; a young or middle-aged man, who is a good job printer and familiar with making estimates, selecting job and stocks, good business man, with a capital of from one to two thousand dollars. To be used in purchasing material in a well-established business that does not owe a dollar of debt. Address X, care MANUFACTURERS' RECORD.

FOR SALE.

One 50-ton Zero Ice Machine at half-price. Correspondence Solicited.
 R. P. GERLACH, Box 110, Cleveland, Ohio.

BASIC AND BESSEMER STEEL ORES.

We have many thousands of acres of the finest Basic and Bessemer Steel ores for sale, on lines of railroads, with limestone in abundance close by, and coal for coking not very distant; also manganese and many good farms. MOON & RENICK,

No. 11 Tenth St., RICHMOND, VA.

BEAUDRY'S UPRIGHT

**CUSHIONED
Power Hammer,
BY FAR THE BEST!**
 Blow accurate, powerful and elastic. Will increase the profits of any shop.
 70 Kilby St., BOSTON, MASS.
 Beaudry & Cunningham.



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Engines and Boilers, Mills of all kinds, Marine Railways, &c. Improved Clay Tempering Machinery, Steam or Horse Power. Phosphate Machinery, Crushers, Rollers, Mixers, &c., &c.

40, 42 & 44 York Street,
 NEAR LIGHT, BALTIMORE.

Repairing of all kinds promptly done.

ESTABLISHED 1865.

Steam Boilers

JOHN T. COLEMAN & SONS,
 Steam Boiler Works,
 Cor. Holliday and Pleasant Sts., Baltimore.

Manufacturers of all kinds of Steam and Bath Boilers, Smoke Stacks, Water Tanks, Lard Kettles, &c. Particular attention given to repairs.

METAL-WORKING MACHINERY

New and Second Hand, on Hand.

19 in. S. x 5 ft. Engine Lathes.
 15 in. S. x 6 ft. Engine Lathes, Lathe & Morse.
 16 in. S. x 6 & 8 ft. Engine Lathes, Harrington & Ames.
 17 in. S. x 7 & 8 ft. Engine Lathes, Hewes & Phillips.
 18 in. S. x 8 & 10 ft. Engine Lathes, New Haven.
 20 in. S. x 8, 10 & 14 ft. Engine Lathes, Harris & Ames.
 24 in. S. x 14 & 20 ft. Engine Lathes, Ames.
 25 in. S. 10 ft. Engine Lathes.
 26 in. S. x 16 ft. Engine Lathes, Perkins.
 41 in. S. x 18 ft. Engine Lathes, Putnam.
 50 in. in Gap Extension Bed Engine Lathes, Box.
 12 in. Stroke Shapers, New Haven & Eungst.
 15 in. Stroke Shapers, Wolcott & Eberhardt.
 20 in. Stroke Shapers, Eberhardt.
 24 in. Stroke Shapers, Bridgeport.
 20 in. x 20 in. x 4 ft. Planer, New Haven.
 20 in. x 20 in. x 6 ft. Planer, Whitcomb.
 20 in. x 20 in. x 6 ft. Planer, Pratt & Whitney.
 22 in. x 22 in. x 4 ft. Planer, Powell.
 22 in. x 22 in. x 5 ft. Planer, Ames.
 24 in. x 24 in. x 4 ft. Planer, Ferris & Miles.
 24 in. x 24 in. x 6 ft. Planer, Powell.
 24 in. x 27 in. x 7 ft. Planer, Ames.
 26 in. x 26 in. x 6 ft. Planer, Powell.
 26 in. x 26 in. x 6 ft. Planer, Putnam.
 30 in. x 30 in. x 10 ft. Planer, National.
 20 in. Swing Drill, Prentice.
 25 in. Swing Drill, Blaisdell.
 28 in. Swing Drill, Blaisdell.
 3 and 4 Spindle Drill, Garvin.
 Brown & Sharpe Universal Miller.
 Plain Miller, Lincoln Pattern.
 No. 3 Miller, Garvin.
 No. 5 Miller, Brainerd.
 2 1/2 in. Cutting-off Machine, Pratt & Whitney.
 No. 3-3 1/2 Stiles Punch Presses.
 Also a line of New Tools all kinds. We are always glad to correspond, and if parties desiring to purchase will write, stating just what they want, we will be glad to name prices on either new or second hand.

E. P. BULLARD,

No. 14 Dey Street, New York.

**WOOD WORKING MACHINERY**

For Cabinet, Chair, Carriage, Wagon, Carpenter, Millwright and Job Shops and Factories.

GOOD WORK & LOW PRICES.

Before Purchasing Machinery write to

F. H. CLEMENT,

215 Milk St., ROCHESTER, N. Y.
 Mention "Manufacturers' Record."



TOOLS for Machinists, Amateurs, Jewellers, Model Makers, Blacksmiths, Carpenters, Coachmakers, etc. Send 25 cts. for new Metal Worker's Catalogue, 300 Pages. Wood Worker's Catalogue free.

TALLMAN & McFADDEN, Philadelphia, Pa.

IMPORTANT!

STANDARD WATCHMAN'S CLOCK
 20 PRIZE MEDALS AWARDED
 FOR 12 STATIONS COMPLETE PRICE \$50
 THE BEST IN THE MARKET
 IF NOT SATISFACTORY RETURN GOODS AT MY EXPENSE
 SEND FOR CIRCULAR O.E. HAUSBURG
 71 NASSAU ST. N.Y.

Established 1867.

E. HARRINGTON, SON & CO.

Manufacturers of a full line of

Iron Working Machinery,

INCLUDING

EXTENSION AND GAP
 LATHES, PLANERS,
 with quick return;
 DRILLS, etc.

HAND POWER ELEVATORS, with Patent brake. DOUBLE CHAIN SCREW HOISTS. OVERHEAD TRAMWAY, with Switch, Turntable and Geared Truck.

Gear Cutting a Specialty. Send for Estimates.

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 Circulars furnished.

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Fine Iron and Brass Castings Made to Order.



Manufacture those celebrated Bells for Tower Clocks, Court-Houses, Cotton Mills, Factories, &c. Prices and catalogues sent free. Address
 H. McSHANE & CO.
 Baltimore, Md.

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Derby Roll Top AND Flat Top Desks

The BEST and CONSEQUENTLY the CHEAPEST OFFICE DESK IN THE WORLD.

Derby & Kilmer Desk Co.,
 Manufacturers.

OFFICE AND WAREHOUSES:

55 to 65 Charlestown St.,
 BOSTON, MASS.

Illustrated Catalogue on Application



MINING NOTES.

By T. K. BRUNN, Salisbury, N. C.

DAVIDSON COUNTY MINES.

Davidson county is one of the oldest mining fields in North Carolina. Cabarrus claims priority; then Montgomery, Rowan and Davidson follow in their order.

Silver Hill is the oldest and deepest worked mine in that county. It has been worked to a depth of more than six hundred feet, and was at one time profitable. The ores are complex, carrying lead, zinc, copper, silver and a very small amount of gold. When the property was first worked the surface yielded gold in paying quantities, and, while the presence of silver was known, it received but little attention. But as depth was attained native silver was found, and besides, exceptionally fine specimens of the lead carbonates, sulphates and phosphates, were brought to the surface. So that within a hundred feet from the surface the character of the mine had been changed from a gold-bearing quartz to an argentiferous galena. The property is now idle and has been since 1878, and it is supposed that the preponderance of zinc in the material has been the difficulty which prevented the profitable working of this valuable deposit.

THE SILVER VALLEY MINE

is similar to the above in formation and ores. It has been worked to the depth of 300 feet, and is reported to have been profitable at one time. The same difficulty resulting from an excess of zinc in the ore has hindered the persistent working of this property. The last ore taken from the lode was concentrated and shipped to Swansea, Wales, but the ore was probably too lean to bear such an expensive journey and have anything left. The property is now idle, pending an action in court, but it is expected that the company will give it another thorough trial as soon as litigation ceases.

CONRAD HILL MINE.

The Conrad Hill Mine, owned by a Baltimore company, headed by Mr. James Clayton, has been of late years one of the most important, if not the leading property in the county. There are several very bold strong veins of "prill" or chalcopryite, which also carry a fair percentage of gold. They use a ten-stamp mill for reducing and amalgamation, the tailings being concentrated and shipped to copper works. The mine has been worked four hundred feet in depth, and laterally on the veins to a considerable extent. A few years ago the property was turning out handsome returns in both gold and copper, but, like most corporations, it seems to have suffered from the "corporators;" at any rate, financial troubles have so embarrassed the company that a continuance of the work was found impractical. Brief descriptions might be given of other properties, but it will suffice to finish with a list of the most prominent mines in that very rich county:

Welborn Mine—galena—J. H. Welborn, of Lexington, N. C.

Symons Mine—gold, etc.—near Silver Hill.

Emmons Mine—copper—Consolidated Gold & Copper Mining Co. of Baltimore.

Cid Mine—copper—Muffley & Co., Philadelphia, Pa.

Labor Mine—gold—Campbell Mining & Reduction Co., of New York.

Glenn Anna—gold—J. T. Scylca, Thomasville, N. C.

Eureka Mine—gold—Eureka Mining Co., of Elmira, N. Y.

Black Mine—gold—adjoins the above; Baltimore Gold & Silver Mining Co., Baltimore.

Helper Mine—gold—Campbell Mining & Reducing Co., New York.

Lines Mine—gold—Mrs. Annie Lines, Thomasville, N. C.

West Thomas Mine—gold—Campbell Mining & Reducing Co., New York.

Rich Fork—gold—Jones, Stevenson & Co., Thomasville, N. C.

Ward Mine—gold—F. H. Stith & Co., Thomasville, N. C.

Frank Mine—gold—F. H. Stith & Co., Thomasville, N. C.

Fine Mine—gold—Baltimore Gold & Silver Mining Co., Baltimore.

Seachrist Mine—gold—J. W. Weed & Co., New York.

Miller Mine—gold—J. W. Weed & Co., New York.

Ida Mine—gold—J. W. Weed & Co., New York.

Lick Creek Mine—gold—G. W. Harris, Lick Creek, N. C.

Baltimore Mine—gold—J. V. Reed, New York.

Bob May Mine—gold—Robert May, Thomasville, N. C.

St. Nicholas Mine—gold—Alf. Shuler, Thomasville, N. C.

Cap. Harris Mine—gold—Captain Harris, Thomasville, N. C.

Besides these there are a large number of less note, but which need further exploration to determine their value.

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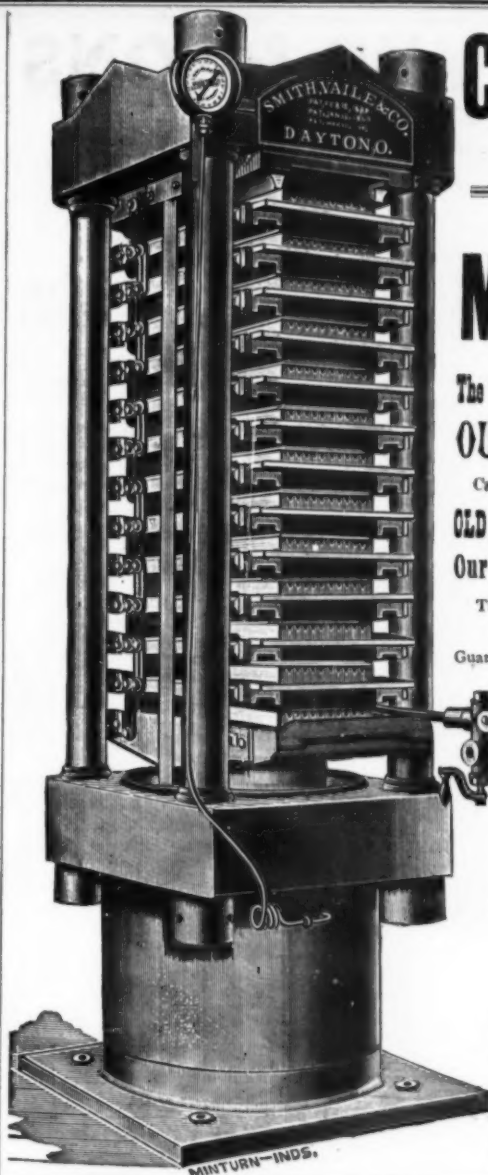
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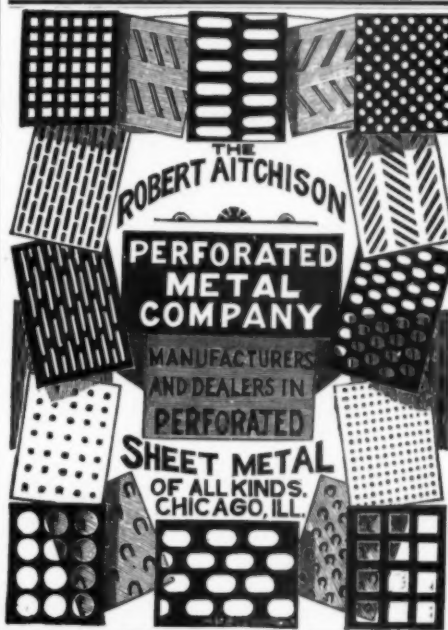
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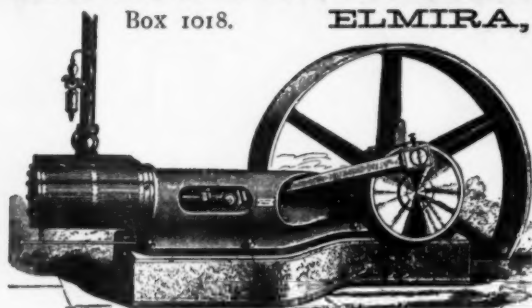
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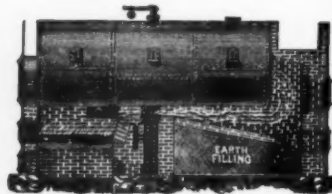
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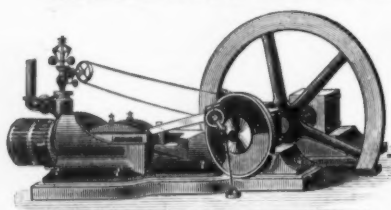
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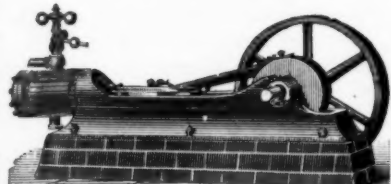
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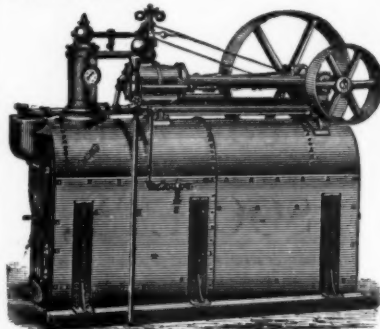
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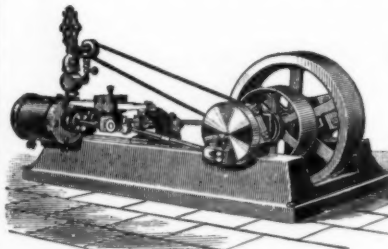
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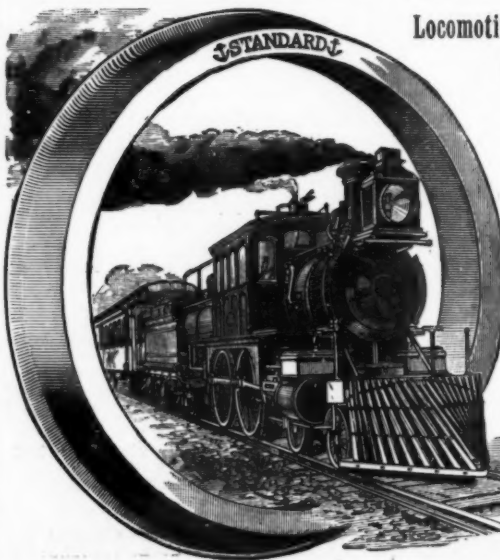
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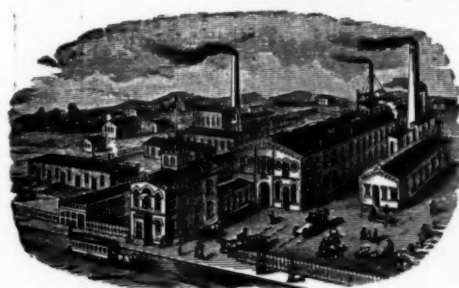
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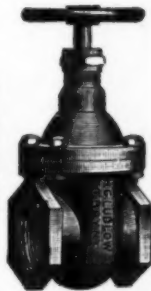
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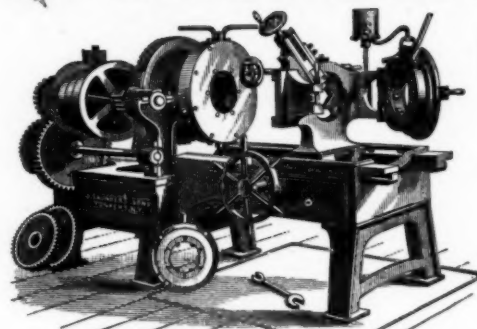


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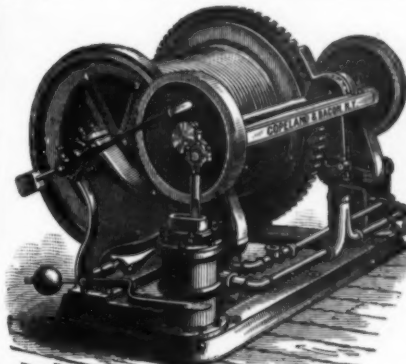
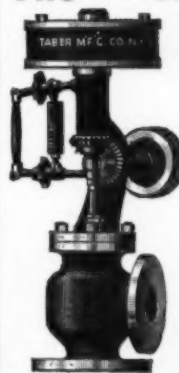
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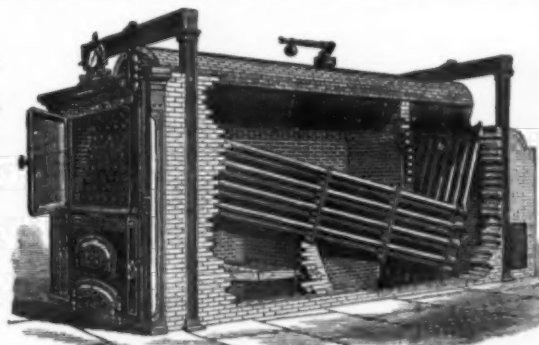
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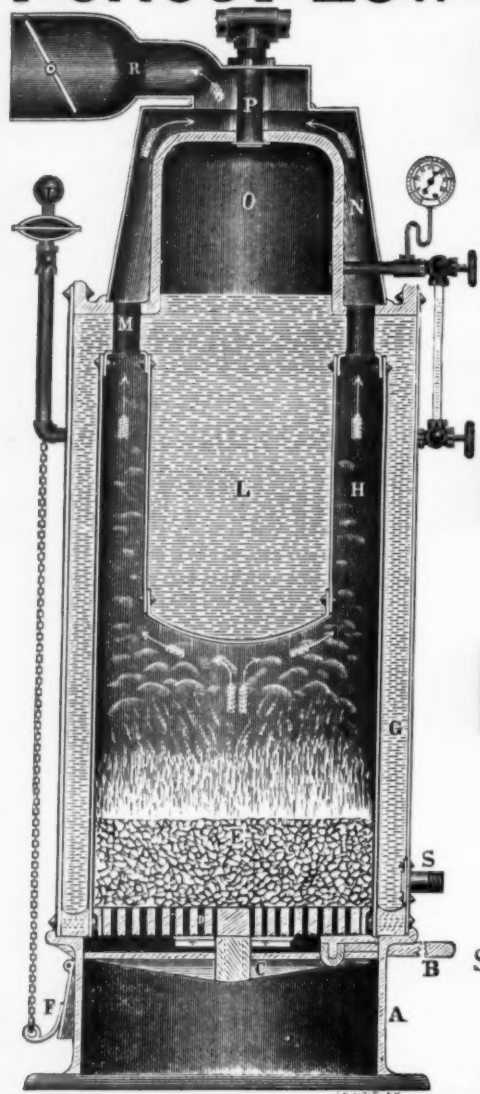
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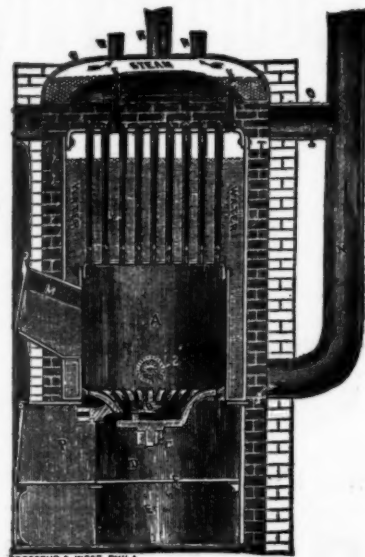
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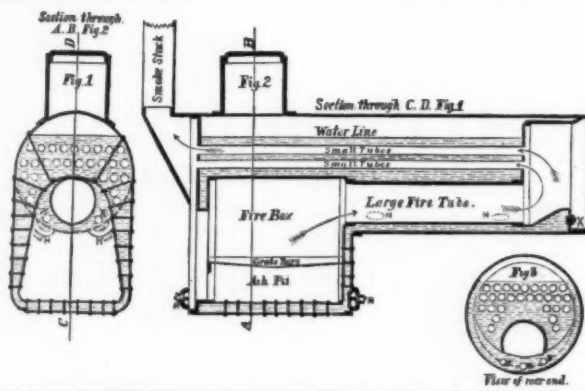
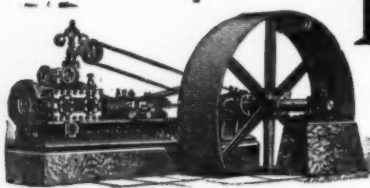
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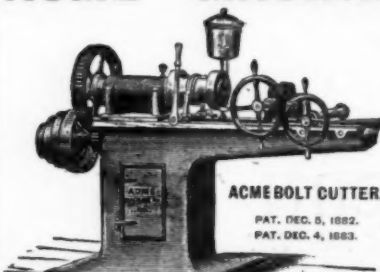
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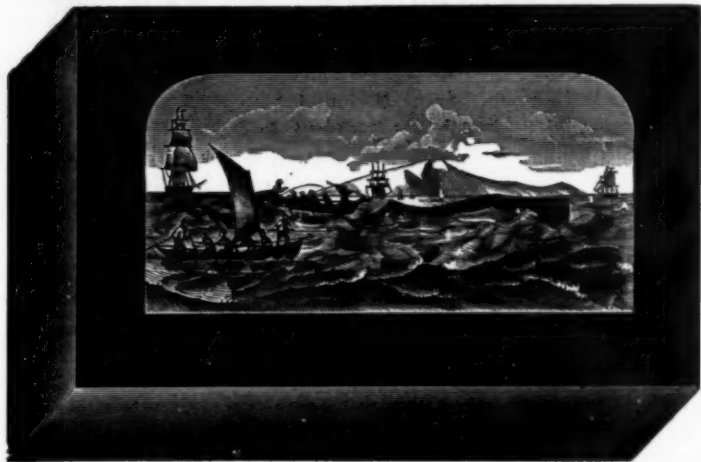
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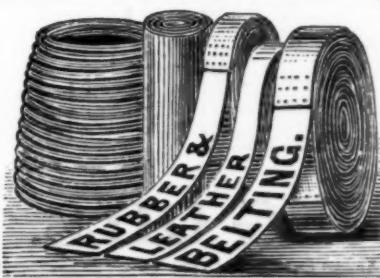
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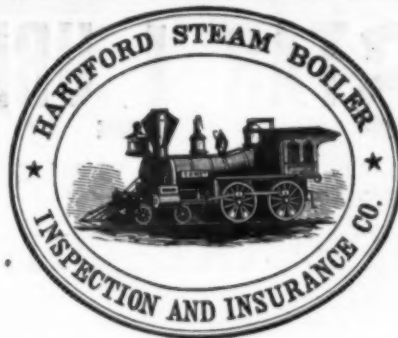
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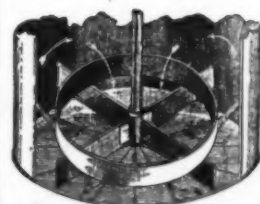
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Representing
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THE SCIENTIFIC PORTABLE FORGE

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BLACKSMITH HAND BLOWERS.

GUARANTEED

The Lightest Running! The Strongest Blast!
The Most Durable!

ADAPTED TO ALL KINDS OF WORK,

Send for Catalogue! AND MADE IN STYLES AND SIZES TO SUIT.

THE FOOS MANUFACTURING CO., - - Springfield, Ohio.



Literary Notes.

THE PAMLICO SECTION OF NORTH CAROLINA. By Jonathan Havens, Newberne, N. C. Price 50 cents.

The resources and attractions of Eastern Carolina have lately been set forth to a considerable extent in a series of letters from that section to the MANUFACTURERS' RECORD, and doubtless there are many who desire more detailed information regarding a country having so many advantages. This information will be found in Mr. Havens' interesting pamphlet of nearly 100 pages, in which there is much of value concerning health, climate and productions.

IN America there are only two monasteries maintained by the Trappist monks, and no monastic order has a more singular history or follows more rigid customs. One of these monasteries, in which the vow of perpetual silence is enjoined, is located at Dubuque, Iowa, and the second is in Nelson county, Ky., a short distance from Louisville. This second is called the monastery of Gethsemane, and is the subject of a magazine article by Morton M. Casseday. The article, well-illustrated, will appear in the Southern Bivouac for July.

The Quiver for midsummer opens with a "Hymn of Summer," by G. Weatherly. Another hymn, "To Heaven I Lift Mine Eye," is given with the music. Lord Brabazon, in a brief article, suggests that we can never have too many societies to look out for "The Welfare of Young Men." For Sunday reading there are "The Three First Chapters of Human History," by the Dean of Denver; "Morning Cometh," to sorrow, doubt, toil, absence and death, by Rev. W. M. Stratham; "Seest Thou This Woman?" by Rev. P. B. Power; "Scripture Lessons for School and Home," and "The Quiver Bible Class." The serials are still "The Heir of Sanford Towers," "Sylvia Moreton's Probations," and "The Stranger Within the Gates," while there are new stories of "Two Little Feet," and "My Gipsy." The illustrations for the descriptive articles on "A Moravian Community," "Waltham Abbey," and Mrs. Garnett's "Sunday on the Yorkshire Moors," are particularly good. The "Short Arrows" all hit the mark.

TRADE NOTES.

RILEY & GRAY, of Boston, have an order from Willimantic Linen Co., Willimantic, Conn., for a quantity of Howard & Bullough Drawing Frames with their patent electric stop motions.

T. T. WINDSOR & Co., Milledgeville, Ga., who are extensively manufacturing "Wilson's Champion Spark Arrester," are going to add a fully equipped machine shop for repair work. They are also investigating as to cost of plant and probable prospects of success of a hub, spoke and handle factory. Would like to receive catalogues from manufacturers of such wood-working machinery.

THE Louisville Hotel Co., Louisville, Ky., have secured Mr. A. Soule, formerly of the Stillman Hotel, Cleveland, O., for their manager, and will shortly work a transformation in their hotel, refurnishing, refitting and modernizing it on an extensive scale. New marble floors and stairway will be put in; old closets and ante-rooms will be torn out, adding to the size of the office; the office walls and ceilings will be handsomely frescoed; new carpets, furniture and baths will be added to the upper floors, and all of the rooms repaired and decorated in modern style; Turkish baths will also be added, a long-felt necessity in the Falls City. The exterior of the hotel will be improved by the addition of large French plate-glass windows. The dining room has been handsomely frescoed and decorated, stained glass added, and it

now presents a bright, cheerful and attractive appearance. The cuisine is first-class; in fact, the service is said to be equal to that of the finest hotels in the country. Mr. Soule has a national reputation as a hotel manager, and at the same time possesses the faculty of gaining the good will and friendship of everybody. The Louisville Hotel is to be congratulated on having secured his services.

THE Self-Acting Fire Extinguisher-Retort is a recently patented extinguisher for use in private dwellings, stores, offices, factories, hotels and public resorts. One advantage claimed for it over the grenade is that the latter requires to be thrown at the location of combustion by a person under nervous excitement, when the bottle may not break, or may go out of the window, or be otherwise inoperative; the Self-Acting Retort will, of itself, smother and extinguish a fire at once, without human presence or aid.

Its general introduction on all vessels at sea, or in the inland waters, would give confidence to travellers as well as security to merchandise. It could be placed at various points in the saloon and distributed throughout the cargo, and be made to extinguish that ever-present danger at sea—spontaneous combustion in the coal bunkers. The offices of the manufacturers are at 234 Broadway, N. Y.

HOWARD & BULLOUGH, of England, whose machinery is sold in this country by Riley & Gray, of Boston, have been successful in obtaining an order from Messrs. J. & P. Coats, of Paisley, (the large thread manufacturers, whose mills in Scotland and in Pawtucket, R. I., are well known,) for 216 deliveries of drawing frames with electric stop motions, and 130 slubbing, intermediate and roving frames. The two former also with above stop motions. These orders were competed for by five of the leading English firms. Great care was exercised in placing the orders. Each firm of machine makers showed the mode of construction at their works, and also their latest productions at work in different mills. All this took weeks, but finally Howard & Bullough were awarded the order. This speaks volumes for the quality of machinery and the improvements made by this enterprising firm. All their machinery is now made entirely by tool work, and their electric stop motions are in great favor, both in Europe and in this country.—Journal of Commerce, May 15, 1886.

THE Merino Elastic Felt Gun Wad Co., of Baltimore, have issued a circular giving the conditions upon which they will distribute six valuable gold medals and other prizes to the trap shooters of the country. To any one interested in trap shooting this circular will be mailed upon application.

Important.

The improvements of the Grand Union Hotel are simply elegant, and the hotel is always kept in perfect order. It is so convenient to all the depots that guests arriving by the Grand Central Depot have their baggage transferred to and from the Grand Union Hotel in five minutes, free of charge. Guests arriving by steamer or railroad, South, North, East or West, are conveyed to the Grand Union Hotel by the elevated railroad for five to fifteen cents, thereby saving \$3 carriage hire. During the past year 110,000 people occupied the 613 rooms of the Grand Union Hotel at \$1 and upwards per day, including of course its elegant suites of rooms for families on the European plan. The dining-rooms, restaurant, cafe, lunch and wine-rooms were supplied with the best at moderate prices. Families lived better at the Grand Union Hotel, and for less money, than at any other first-class hotel in New York.

THE "American," of Boston, more than sustains its well earned reputation as one of the best managed hotels in New England. Particular attention is paid to the comfort of guests and a desire to please is apparent in all parts of the house.

List of Patents

The following Patents were granted to citizens of the Southern States, bearing date June 8, 1886. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Bemadac, Jean, New Iberia, La. Horseshoer's knife.....	343,486
Bemadac, Jean, New Iberia, La. Hoof trimming device.....	343,487
Bradford, S. S., Norfolk, Va. Life-saving car.....	343,458
Cosgrove, E. J., Augusta, Ga. Automatic air and steam brake.....	343,830
Crow, J. W., Arkadelphia, Ark. Fruit tree and plant cover.....	343,533
Dorsey, Frederick, Hagerstown, Md. Packing and preserving cornmeal, &c.....	343,163
Fries, J. W., Salem, N. C. Tanning.....	343,166
Fries, J. W., Salem, N. C. Tanning.....	343,167
Gantt, H. L., Baltimore, Md. Converter for making Bessemer metal.....	343,448
Haffcke, Chas., Baltimore, Md. Cooling air in refrigerators, &c.....	343,369
Harrell, J. J., Austin, Texas. Animal shears.....	343,240
Heinig, F. E., Louisville, Ky. Flue-cap and ventilator.....	343,456
Hipp, A. I., Columbia, S. C. Saw mill feed-mechanism.....	343,457
Hutson, J. B., Richmond, Va. Combined latch and lock.....	343,376
Johnson, D. M., Morven, N. C. Cultivator, distributor and planter.....	343,275
Johnson, T. J., Fort Worth, Texas. Curry comb.....	343,323
McGuire, Thomas, Baltimore, Md. Curtain fixture.....	343,483
Middleton, Frank, Richmond, Va. Clay-tempering machine.....	343,472
Moffatt, W. E., Chester, S. C. Seed-planter.....	343,330
Montfort, Richardson, Butler, Ga. Clevis.....	343,474
Norris, F. S., Shreveport, La. Car-coupling.....	343,486
Packwood, G. H., Tampa, Fla. Slop-pail, commode and nursery-chair.....	343,198
Paul, A. W., and G. F. Butters, Wheeling, W. Va. Drawing sheet metal.....	343,390
Stone, O. M., and G. A. Platt, Augusta, Ga. Cotton-gin attachment.....	343,260
Tully, M. C., Louisville, Ky. Device for operating street cars.....	343,211
Vincent, W. E., Port Deposit, Md. Soldering machine.....	343,508
Walker, J. F., Brandenburg, Ky. Bee-hive.....	343,212
Wright, W. A., Chipley, Ga. Graduated ball and socket joint for surveyors' instruments.....	343,558

PATENTS FOR INVENTIONS

(American and Foreign.) Trade Marks, etc., procured through the agency of

Arthur C. Fraser & Co.

TEMPLE COURT, NEW YORK CITY.

(Entrance 5-7 Beekman St.) Hand-book of information sent free to any address.

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ALSO MANUFACTURERS OF

Leather Belting,

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SPECIALTIES—Harness, Black and Fair Bridles, Line Leather, Saddle and Shoe Skirting, Russett and Stained Rein Welt, Fly-Net and Collar Leather. Superior Harness Backs. Write for prices. Mention this Paper.

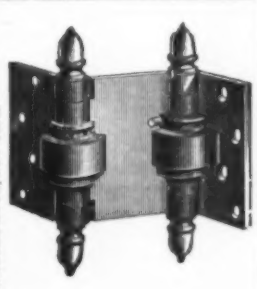
ARCTIC ICE MACHINE MFG. CO.

Works, 4, 6, 8 & 10 West Street, Cleveland, O.

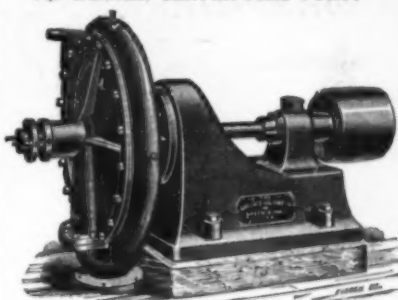
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are Simple, Easily Set. Cannot be put on wrong. They work either way, right or left. All sizes. Single or double acting. For Wire Screens and Right Doors. Send for Circular. Sent for 10 Cents. Sole Agent, 79 Chambers St., New York.



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New and improved designs: double suction inlets, which properly balance Pump when running, and greatly increase the efficiency and durability. The only pump so made. Workmanship superior to any other pump made. Will outwear the best. The smaller sizes in stock up to 8 inch delivery pipe. Send for circular.

THE LAWRENCE MACHINE SHOP, Lawrence, Mass. Sales Department conducted by JOHN POST, JR., & Co., Mason Building, Boston, Mass.; CHAS. W. LAVERMORE, 111 Broadway, New York City; FAIRBANKS & Co., 308 and 304 Washington Ave., St. Louis, Mo.; H. P. GREGORY & Co., 2 and 4 California St., San Francisco, Cal.; JOHN S. MOORE, 169 Gravier St., New Orleans, La.



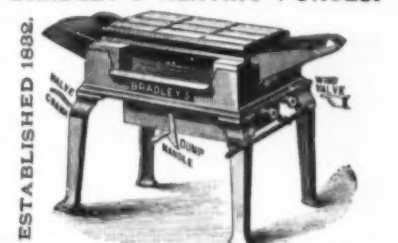
Roller Tube Expanders.

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For Hard Coal or Coke. Indispensable in all shops to keep Bradley's Cushioned Hammers and men fully employed and reduces cost of production.

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Manufacturers of Taper-Sleeve Wood Belt Pulleys, Adjustable Dead Pulleys, Friction-Clutch Pulleys, Friction



Clutch Couplings, Wood Pulleys in Halves, Taper-Sleeve and Compression Couplings, Shafting, Post and Drop Hangers. Correspondence Solicited. Friction-Clutch Pulley.

The Hardware Trade Should Sell the Ligowsky-Mueller Trap No. 7 with "TEIPEL ARM" for TONGUELESS

LIGOWSKY "Clay" Pigeons, No. 2." C.P.CO. Cin'ti, O.



HUGH SISSON & SONS,

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MANUFACTURERS OF

Marble Monuments

Tombs, Altars, Counters, Furniture Slabs, Mantels, Tiles Estimates and Drawings Free.

THE MARKETS.

OFFICE MANUFACTURERS' RECORD, }
BALTIMORE, June 16, 1886. }

The condition of the growing crops continues to be a subject of much concern, as upon them depends to a large extent the future of all business interests. Up to the present time the outlook is on the whole good, and while cotton and corn are possibly not up to the point reached at the corresponding time last year, it is still quite within the range of possibilities that these two staples should yield even larger crops than in 1885. It depends, of course, upon the weather, which last year was favorable in the early part of the season, but very unfavorable later on. Good growing weather for the next few months would produce very large crops. Wheat is now being harvested in some parts of the country, and the yield in the South will be largely in excess of last year.

In manufactured iron trade is still dull and prices low, but there are some indications of improvement, enquiries being quite free. The volume of business is small. Stocks are light and much broken. We quote nominally as before, viz:

Ref. Bar Iron, 1 to 6x3/4 to 1.....	1.85@	2 c
" " 1 to 4x3/4 to 1.....	1.85@	2 c
" " 3/4 to 2, round and square.....	1.85@	2 c
Hoop Iron, 1 1/2 wide and upward.....	2 1/4@	2 3/4 c
Band Iron, from 1 1/2 to 6 in. wide.....	2.30@	2 1/2 c
Horseshoe Iron.....	2.75@	c
Norway Nail Rods.....	4 1/2@	5 c
Black Diamond Cast Steel.....	9@	10 c
Machinery Steel.....	3 1/2@	4 1/2 c
Spring Steel.....	3 1/4@	4 c
Common Horse Nails.....	3@	9 c
Railroad Spikes, 5/8x9-16.....	2 1/2@	2 3/4 c
Horse Shoes, 1/2 keg.....	3 85	
Mule Shoes, ".....	4 85	
Steel Boiler Plate.....	3 1/4@	3 3/4 c
Iron Boiler Plate.....	2 1/4@	4 c
Boiler Tubes.....	55% off list	

The reports of furnaces in blast show that the production of pig iron is now unusually heavy, causing an increase in stock. The weekly output of the furnaces at present is said to be greater than ever before, but there are no apparent indications of any disposition to curtail production. Locally the demand is light and market dull, with prices as last quoted, viz:

Baltimore Charcoal Wheel Iron (all Baltimore ore).....	\$25 00@26 00
Virginia C. B. Charcoal Wheel Iron.....	25 00@26 00
Anthracite, No. 1.....	18 00@19 00
" " 2.....	16 00@17 00
" " 3.....	15 00@16 00
" Mottled and White.....	13 00@14 00
Old Iron Rails.....	19 00@20 00
Old Iron Rails, D. H.....	20 00@21 00
Old Steel Rails.....	20 00@22 00
No. 1 Wrought Scrap.....	19 00@20 00
Old Car Wheels.....	15 00@16 00

HARDWARE.

Contrary to general expectations the hardware trade is pretty active, with sales very large in all lines of goods for the season. One leading house reports the sale of more cutlery during the last two weeks than ever before at the corresponding time of the year. Other goods are likewise in demand, though the sales have not been proportionately on so large a scale. Prices remain unchanged.

Nails are still dull and prices very low, as last quoted, but there is not much disposition to sell at these figures, speculative orders being refused. The prices are nominally \$2.00 to \$2.10, according to quantity, but these prices are cut 10 cents, and in some cases even a lower rate has been accepted.

Philadelphia Iron Market.

PHILADELPHIA, June 15, 1886.

The past week was quiet in all kinds of iron, as has been the case for some time. The only branches in which activity is noticed are steel rails, wrought iron pipe and skelp iron. Skelp iron is moving actively in 500 and 1,000 ton lots, and quoted at \$1.85 to \$1.90. The business in rails does not fall off, and \$36 is quoted for early deliveries. There are a number of mills who cannot contract for early deliveries, and much of their

business is taken at \$35 and \$35.50. Bars are selling in a very slow way at \$1.70 to \$1.85 for common to refined. There is very little movement in plate or sheet iron. The bridge iron makers are looking for some very large business within a short time. Small orders are coming in in a moderate way from bridge builders. Beams and channels are still held at 3 cents, and angles at \$1.95 to \$2. The demand for pig iron is light, but no change has been made in quotations excepting on some of the inferior makes, for which concessions are made, and there is plenty of that kind of iron to be had. Prices for the standard and special brands are held firmly, and makers do not intend to make and decline. Notwithstanding the complaints that are constantly made, the consumption is very good. Stocks at furnaces are not large, and production is being slightly increased. Forge is \$15.50 to \$16.50; No. 2 foundry, \$17 to \$17.50, and No. 1, \$18 to \$19. Muck bars are quoted at \$29 to \$29.50. No demand is reported for either Bessemer or Spiegeleisen. Old rails are quoted at \$19 to \$20.50, with very few sales at any price. Old steel rails are \$20 to \$21. No. 1 wrought scrap is \$17.50 to \$18; selected, \$20 to \$20.50; old car wheels, \$16; steel scrap, \$14.50 to \$16; machinery scrap, \$14 to \$15; cast turnings, \$10; wrought turnings, \$14.50.

Cincinnati Iron Market Report

Specially reported by ROGERS, BROWN & Co., Pig Iron Commission.

CINCINNATI, June 14, 1886.

There is a fair degree of activity in the market, but the tendency of prices is to decline. Taking the range of iron together prices are unquestionably 50 cents lower than a month ago. There is very little accumulation at furnaces South or North. Cost of making is not lowered. Demand, present and prospective, is good; but a good deal of iron is being made and some sellers seem very anxious. Under such circumstances, the disposition of buyers is to postpone orders of any size. We hear of sales of 17,000 tons of Bessemer iron in the Northwest and 5,000 tons in Ohio this week. There have been some sales of mill iron. Southern railroads are handling iron more freely again, after the delays growing out of change of gauge. Our quotations revised to cover current business:

OHIO AND SOUTHERN STRONG COKE No. 1.....	\$16 00@17 00
" " " " No. 2.....	15 00@16 00
" " " " No. 3.....	14 50@15 50
OHIO SOFT STONECOAL, No. 1.....	17 00@17 50
" " " " No. 2.....	15 50@16 50
MAHONING AND SHENANGO VALLEY COKE, No. 1.....	18 00@19 00
CHARCOAL IRON.	
Hanging Rock, No. 1.....	\$19 00@21 00
" " " " No. 2.....	18 00@20 00
Tennessee and Alabama, No. 1.....	17 50@18 50
" " " " No. 2.....	16 50@17 50
PURCH.	
Strong Neutral Coke.....	\$14 00@15 00
Mottled ".....	13 00@13 50
Cold Short.....	13 00@14 00
CAR WHEEL AND MALLEABLE.	
Southern Car-Wheel Iron.....	21 00@24 00
Hanging Rock C. B.....	25 00@27 00
" " " " W. B.....	20 00@22 00
Lake Superior Malleable.....	22 00@23 00

Specially reported by E. L. HARPER & Co.

CINCINNATI, June 14, 1886.

The past week has been quite active in the pig iron market. Several large orders have been placed, also a number of smaller ones, ranging from fifty to one hundred ton lots, all at fair prices. The number of inquiries is increasing, and judging from indications, prospects for the future are certainly quite encouraging. We quote for cash on wharf or cars here:

FOUNDRY.		Cash.
Hanging Rock Charcoal, No. 1.....	\$20 00@20 50	
" " " " No. 2.....	19 00@19 50	
Southern Charcoal " " 1.....	18 75@19 75	
" " " " 2.....	17 75@18 75	
Strong Neutral Coke, " " 1.....	17 00@17 50	
" " " " 2.....	16 50@17 00	
American Scotch, " " 1.....	17 00@17 50	
GREY FORGE.		
Neutral Coke.....	15 00@15 50	
Cold Short.....	14 50@15 00	
CAR WHEEL AND MALLEABLE.		
Hanging Rock, strictly cold blast.....	25 00@26 00	
Hanging Rock, strictly warm blast.....	21 00@21 50	
"Cranberry," N. Carolina Warm Blast.....	20 00@21 50	
Amherst and Virginia Warm Blast.....	20 00@21 00	
Lake Superior Charcoal, all grades.....	23 00@24 00	

CINCINNATI CORRUGATING COMPANY.

JOHN F. HAZEN, Prest.

JAMES HICKS, Treas.

J. G. BATTELLE, Sec'y.

Over 1500 Tons Iron in Stock!

FOUR WIDTHS OF CORRUGATIONS MADE!
STANDING SEAM PLAIN ROOFING!
All Paint Re-ground in Pure Linseed Oil!

T. C. SNYDER & CO., Canton, Ohio,



Manufacturers of a general line of

IRON ROOFING,

SIDING AND CEILING,

Patent Seamless, Solderless Eave Trough, Malleable Hangers, &c.

Send for catalogue, price list and samples.

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SUCCESSORS TO

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MANUFACTURERS OF

HOLTON'S PATENT Improved IRON Roofing,

"V" EDGED CRIMPED ROOFING, SIDING AND CEILING. Responsible Agents wanted to handle our work in every county in the United States. Send for circulars and prices. New Lisbon, Ohio.

SYKES IRON ROOFING CO., NILES, O.

CRIMPED

SYKES' IMPROVED Best Roof in the World. Suitable for all classes of Buildings. Easy Put On.



All my Iron is Re-Rolled and Box Annealed, well Painted on both sides with Best of Paint and Pure Linseed Oil.

CORRUGATED

Send for Circular and Price List, and mention this Paper.

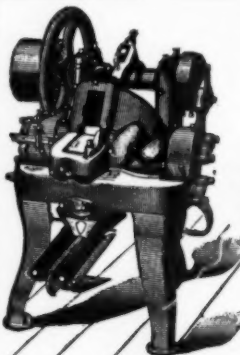
CRIMPED & CORRUGATED

IRON ROOFING,

SIDING. METAL SHINGLES. CEILING.

W.G. HYNDMAN & CO.

SEND FOR CIRCULAR & PRICES CINCINNATI, O.



The American Nail Machine Co.

MANUFACTURERS OF

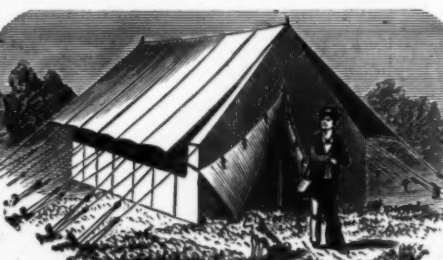
AMERICAN PATENT

Improved Cut Nail Machines,

AUTOMATIC NAIL SELECTORS and NAIL FACTORY SUPPLIES,

ASHTABULA, - - - OHIO.

Prices and particulars furnished on application.



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MANUFACTURES

Flags, Awnings, Tents,

No. 13 N. GAY STREET,

BALTIMORE, MD.

SAML. G. B. COOK & CO., HARDWARE

MANUFACTURERS' AGENTS

63, 65, 67 and 69 German St., BALTIMORE, MD.

AGENTS FOR

American Screw Co.—Screws, Rivets, Bolts, etc.
 Branford Lock Works.
 Buckthorn Fence Co.—Buckthorn Fencing.
 Blair Manufacturing Co.—Easy Lawn Mowers.
 Ross Molasses Gates.
 Buffalo Hammer Co.—Cast Steel Hammers.
 C. S. Bell & Co.—Farm Bells.
 Carr & Crawley.—Shelf and Saddlery Hardware.
 Clark Bros. & Co.—Bolts.
 H. Chapin's Sons.—Planes, Rules, Levels, etc.
 John Chatillon & Son.—Spring Balances.
 R. S. Clark & Co.—Hand and Sleigh Bells.

A. Field & Son.—Tacks, Finishing and Shoe Nails
 Gooch Freezer Co.—Peerless Freezers.
 H. C. Hart Manufacturing Co.—Shutter and Spring Hinges, Screen
 Frames, &c.
 Hubbard & Co.—Axe, Shovels, Hoes and Saws.
 Kimball's Patent Solid Steel Shovels and Spades.
 Lawson & Brenizer.—Keystone Forks.
 W. T. Menecree & Co.—Stair Rods, Dog Collars, &c.
 Nicholson File Co.
 Peck Bros. & Co.—Brass Cocks.
 Patton Manufacturing Co.—Enameled and Finished Stoneware, &c.
 Penfield, Block & Co.—Tackle Blocks.

Harvey W. Peace Co.—Hand, Rip and Panel Saws.
 H. W. Reed—Brick and Plastering Trowels, Shoe Knives, &c.
 Scott Manufacturing Co.—Peach and Apple Parers, Ice Creepers, &c.
 Henry Seymour Cutlery Co.—Seymour's and Massachusetts Shears.
 B. Seitz.—Root Hames.
 Underhill Edge Tool Co.—Hatchets, Adzes, &c.
 Walker Horse Shoe Co.—Patent Horse and Mule Shoes.
 R. Wallace & Son, Manufacturers.—Plated Ware.
 Wheeling Hinge Co.—Wrought Goods.
 Woodruff, Miller & Co.—Ox Shoes.
 J. W. Williams & Son.—Thimble Skeins.
 Zimmerman Shutter Fasteners.

BAGNALL & LOUD BLOCK CO. BOSTON, MASS.

Largest Manufacturers of Tackle Blocks in the World.

Manufacturers of the Latest Improved Self-Adjusting ROLLER BUSHED and GENUINE METALINE BUSHED and Iron Bushed Rope and Iron Strapped

TACKLE BLOCKS.



Improved Self-Adjusting Roller Bushed Iron Sheave.

Send for the Celebrated
STAR BRAND.

Improved Harcourt Patent Block.

Send for Catalogue
No. 5.

Improved Self-Locking Link Snatch Block.

OFFICE AND WORKS:

Euclid Ave. Station.

CLEVELAND HARDWARE CO.

CLEVELAND, OHIO.

Manufacture PATENT WROUGHT IRON HAND AND POWER SHEARS,

With and Without Punch Attachment, For CUTTING and PUNCHING.

IRON and SOFT STEEL.

Also a Full Line of WAGON HARDWARE.

SPECIAL SHAPES AND MERCHANTS' IRON.

Collins' Brake, Patent Wagon Box Rod, Wrought Iron Seat Spring Hooks, Lockpin Clevis and Clip (for doubletrees,) Stay Chain Ring, Wagon and Implement Clevises, Wagon Box Stop Bolts, Wrought Iron Bolster Plates, Hammer Strap, Wagon Box Iron, Axle Clip, Wagon Seat Springs, Buggy Toe Rail, Buggy Rub Irons, New Style Pole Cap and Hold Back, Hold Back and Wear Iron, Side Braces, King Bolts, Reach Pins, Doubletree Plates, Stay Chain Bolts, Staples, Coupling and Tongue Plates, Circle Posts, Singletrees, Clips, Singletree Irons, and a Full and Complete Line. We solicit correspondence with THE TRADE and will send illustrated catalogue, prices and discounts upon application.

NEW PATENT COMBINATION LATHE CHUCK.

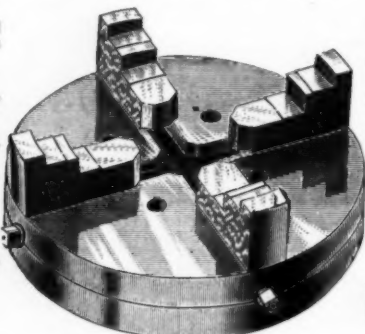


BACK VIEW.

This Chuck is constructed upon the same general principles as the well-known

Horton Chuck

with the additional feature that it can be used either as an

Independent,
Universal Concentric
or Eccentric.

FRONT VIEW.

Warranted to be the Strongest, Most Accurate, and Easily Operated Combination Chuck in the market.

TRADE MARK:

The Horton Lathe Chuck.



VIEW OF WORKING PARTS.

Manufactured by THE E. HORTON & SON CO., WINDSOR LOCKS, CONN., U. S. A. Send for Illustrated Price-List.

Ross Patent Refrigerator

Is the Only Guaranteed
Dry Cold-Air Refrigerator
MANUFACTURED.The Best in the World For
Families, Butchers, Brewers, Packers,
Steamboats, Railroad Cars, Fruit
Houses, Dairies, Grocers, Saloons, &c.
Send for Illustrated Catalogue and Price-Lists.

Ross Patent Refrigerator Co.

24 to 32 State Street,
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GEO. D. BRIGGS, Vice-President.
L. O. DENISON, Secretary and Treasurer.

STANDARD TOOL COMPANY

MANUFACTURERS OF

STRAIGHT LIP INCREASE
Twist Drills

Of Every Description.

SOCKETS, CHUCKS, SCREW
DRIVER BITS,
Special Drills
to Order.

ORDERS FOR

SPECIAL
MACHINERY and TOOLS
SOLICITED.

Send Drawings and Specifications.

CLEVELAND, OHIO.

— New York Office, 33 Chambers Street. —

→ **HARDWARE.** ←**Baltimore WHOLESALE Prices.**

ANVILS.	
Eagle and Vulcan.....	10 c. dis 20%
Wright's.....	9 1/2 c
Armstrong's Mouse Hole.....	8 1/2 c
Trenton.....	10 1/2 c
Wilkinson's.....	10 1/2 c
AUGERS AND BITS.	
Conn. Valley Mfg. Co.....	dis 60% 10% 10%
Douglass Mfg. Co.....	7 1/2% from list of
Ives.....	Jan. 7, 1880
Cook's Douglass Mfg. Co.....	dis 60% 10%
Grissold.....	dis 50% 10%
Patent Solid Head.....	dis 25%
Russell Jennings' Auger, Dowell, Machine-	
Dowell and Hand Rail Bits.....	dis 10% 10% 10%
Ives' "Jennings" Bits.....	dis 40% 10% 10%
Expansive Bits, Clark's small, 1 1/2; large, 2 1/2.....	dis 25%
Expansive Bits, Ives.....	dis 33 1/2%
Expansive Bits, Blake's.....	dis 40%
Hollow Augers, Douglass.....	dis 25%
Hol. Aug., Bonney's Adjust., 1/2 doz \$4.80, dis 25% 10%	
Hol. Aug., Stearns' Adjust., 1/2 doz \$4.80, dis 25% 10%	
Hol. Aug., Ives' Expansive, each \$4.50, dis 30% 10%	
Hol. Aug., Universal Expansive, each \$4.50, dis 20%	
Wood's.....	dis 25%
Gimlet Bits.....	\$7.50 gross, dis 50%
Gimlet Bits, Diamond.....	dis 40%
Double Cut Gimlet Bits, Shephardson's.....	dis 40%
Double Cut Gimlet Bits, Douglass.....	dis 33 1/2%
Double Cut Gimlet Bits, Ives.....	dis 50%
Morse's Bit Stock Drill.....	dis 25%
L. Hommedieu's Ship Augers.....	dis 15%
AWL HAFES.	
Sewing Brass Ferrule.....	\$3.50 gross—dis 40% 10%
Patent Sewing, Short.....	dis 40% 10%
Patent Sewing, Long.....	dis 40% 10%
Patent Peg, Plain Top.....	dis 40% 10%
Patent Peg, Leather Top.....	dis 40% 10%
AWLS, BRAD SETS, &c.	
Awls, Sewing, Common.....	75c. to \$1
Awls, Shouldered Peg.....	75c. to \$1
Awls, Patent Peg.....	50c. to \$1.50
Awls, Shouldered Brad, 1/2 gross \$2.70—dis 25% 10%	
Awls, Handled Brad.....	\$7 gross—dis 25% 10%
Brad Sets, Aiken's.....	dis 45% 10%
Brad Sets, No. 4, 1/2 doz \$1.50—dis 70%	
Brad Sets, Stanley's Exc. No. 1, 1/2 doz \$1.50—dis 70%	
Brad Sets, Stanley's Exc. No. 2, 1/2 doz \$1.50—dis 70%	
Brad Sets, Stanley's Exc. No. 3, 1/2 doz \$1.50—dis 70%	
AXES.	
Collins & Co.....	\$7.25; beveled \$7.75
Cohoes Mfg. Co.....	\$7.25; beveled \$7.75
Lippincott or Mann's.....	
Single Bit, 1/2 to 3/4 and under.....	dis 50% 10%
Single Bit, 3/4 to 6 and over.....	dis 50% 10%
Double Bit, beveled.....	dis 50% 10%
Double Bit, 1/2 to 3/4 and under.....	dis 50% 10%
Double Bit, 3/4 to 6 and over.....	dis 50% 10%
Double Bit, beveled.....	dis 50% 10%
Second quality Axes.....	50 cts. less than above
AXLES.	
Sheldon & Co., iron.....	55% off
" " steel.....	55% off
AXLE GREASE—FRASER'S.....	
Spring Balances.....	dis 40% 10%
BELLS.	
Hand, Light Brass.....	dis 75% 10%
Hand, White Metal.....	dis 60% 10%
Hand, Silver Chime.....	dis 20% 10%
Hand, Globe (Cone's Patent).....	dis 25% 10%
Gong, Abbe's.....	dis 20% 10%
Gong, Vankee.....	dis 30% 10%
Gong, Barton's.....	dis 30% 10%
Leon Reading.....	dis 25% 10%
Pull, Brook's.....	dis 50% 10%
Crank, Taylor's.....	dis 25% 10%
Lever, Sargent's.....	dis 55% 10%
Bloomfield.....	dis 20%
Lever, R. & E. M. Co's.....	dis 45% 10%
Call.....	dis 25%
Cow, Common Wrought.....	dis 55% 10%
Cow, Western, Sargent's List.....	dis 55% 10%
Cow, Kentucky, Sargent's List.....	dis 55% 10%
Cow, Moore's or Dodge's, Genuine Ky., new list:	
Nos. 0 1 1 1/2 2 3 5 5 6 Hog (dis 70	
\$12 \$10 \$8 \$7 \$4 \$3.50 \$2.50 \$2	
Cow, Texas "Star".....	dis 40%
BELLUWS.	
Blacksmith's Common.....	dis 50% 10%
Molder's.....	dis 25%
Hand Bellows.....	dis 25%
BLIND FASTENERS.	
Francis.....	dis 20%
Mackrell's.....	dis 20% 10%
Van Sand's Screw Pattern.....	dis 20% 10%
Van Sand's Old Pattern. 1 1/2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	
Merriman's, 10 1/2 in.....	dis 20% 10%
Zimmerman's, 9 in.....	dis 20% 10%
BLIND STAPLES.	
Barbed, 1/2 in. and larger.....	dis 11% 10%
Barbed, 3/4 in.....	dis 13% 10%
BLOCKS.	
Bagnall & Loud.....	dis 50%
BOLTS.	
Cast Iron Barrel Shutter, &c.....	dis 55% 10%
Cast Iron Chain (Sargent's list).....	dis 60% 10%
Wrought Barrel.....	dis 55% 10%
Wrought Square.....	dis 55% 10%
Wrt. Shutter, all Iron, Stanley's list.....	dis 50% 10%
Wrt. Shutter, Brass Knob, Stanley's list.....	dis 50% 10%
Wrought Shutter, Sargent's list.....	dis 50% 10%
Wrought Sunk Flush, Sargent's.....	dis 65% 10%
Wrought Sunk Flush, Stanley's.....	dis 40% 10%
Wrought B. K. Flush, Stanley's.....	dis 50% 10%
Carriage and Tire, Common, new list.....	dis 80%
Carriage and Tire, Philadelphia Pattern.....	dis 80%
Carriage Bolts, Clarke's.....	dis 75% 10%
Norway.....	dis 75% 10%
R. B. & W. Carriage (old list).....	dis 65%
Tire, American Screw Co's, Phila.....	dis 82 1/2%
Tire, "Bay State".....	dis 70% 10%
Eagle Philadelphia Tire Bolt.....	dis 82 1/2% 5%
Stove.....	dis 70%
Plow.....	dis 60% 10%
Machine.....	dis 75% 10%
Bolt Ends and Lag Screws.....	dis 75% 10%
BORAX.	
15c 1/2 lb net.	
BRACES.	
Q. S. Backus.....	dis 50%
Barber's.....	dis 40% 5%
Spofford's Patent.....	dis 50% 5%
Ive's Patent Braces.....	dis 50%
Common Ball (American).....	dis 55%
Amidon's.....	dis 50%
BORING MACHINES—WITHOUT AUGERS.	
Sweet & Clark upright, 3 1/2 angular.....	4.40 net
Lawrence.....	3.00 net
Hubbard.....	3.00 net
Phillips, with Augers.....	7.00 7.50 net
BRACKETS.	
Shelf, plain.....	dis 50% 10%
Shelf, fancy.....	dis 55% 10%

BRIGHT WIRE GOODS.	
New list.....	dis 70% 10% 10% 10%
BULL RINGS.	
Union Nut Co.....	dis 55%
Sargent's.....	dis 60% 10%
Humason, Beckley & Co's.....	dis 60% 10%
BUTTS.	
Wrought Brass.....	dis 70%
Cast Brass, Fast Joint.....	dis 20% 10%
Cast Brass, Loose Joint.....	dis 10% 10%
Fast Joint, Narrow.....	dis 60% 10%
Fast Joint, Broad.....	dis 60% 10%
Loose Joint, Japanned.....	dis 70% 10%
Loose Joint, Jap, with Acorns.....	dis 70% 10%
Parliament Butts.....	dis 70% 10%
Mayer's Hinges.....	dis 70% 10%
Loose Pin, no Acorn.....	dis 70% 10%
Loose Pin, Acorns.....	dis 70% 10%
Loose Pin, Acorns, Japanned.....	dis 70% 10%
Loose Pin, Acorns, Jap'd, Plated.....	dis 70% 10%
TIPS.	
Wrought Iron.....	dis 65%
Fast Joint, Narrow.....	dis 65%
Fast Joint, Lt. Narrow.....	dis 65%
Fast Joint, Broad.....	dis 65%
Loose Joint, Broad.....	dis 65%
Table Butts, Back Flaps, &c.....	dis 65%
Inside Blind, Regular.....	dis 65%
Inside Blind, Light.....	dis 65%
Loose Pin, Wrt.....	dis 65%
Loose Pin, Light.....	dis 65%
Spring Hinges—	
Geer's Spring and Blank Butts.....	dis 30%
Hart Manufacturing Co.....	dis 60% 10%
American Spring Hinge Co's.....	dis 25%
Gem Spring Hinges.....	dis 25%
Blind Butts, Shepard's, Nos. 50 and 60.....	dis 70%
Blind Butts, Shepard's, No. 50.....	dis 70%
Blind Butts, Shepard's, No. 75.....	dis 70%
Blind Butts, Lull & Porter.....	dis 80%
Blind Butts, Huffer.....	dis 50% 10%
Blind Butts, Clark's, Nos. 1, 3, 5.....	dis 80%
Standard Lull & Porter.....	dis 75% 10%
BOW PINS.	
Humason, Beckley & Co's.....	dis 55% 5%
Sargent & Co's.....	\$19.70 and 21.40; dis 60% 10%
Hotchkiss.....	dis 25%
BUTCHER'S CLAVERS.	
Humason & Beckley Mfg. Co.....	dis 25%
Bradley's.....	dis 25%
Beatty's.....	dis 25% 5%
1 2 3 4 5 6 7 8	
\$16.50 19.00 21.50 24.00 27.00 30.00 33.50 36.50	
CAN OPENERS.	
American.....	dis 70% 10%
New Idea.....	dis 50% 10%
No. 4, French.....	dis 20% 25%
No. 5, Iron Handle.....	dis 20%
Sardine Scissors.....	dis 55%
Sprague, No. 1, 2; No. 2, 2.25; No. 3, 2.50; dis 50% 10%	
Universal.....	dis 30% 10%
CAPS, PERCUSSION, 1,000.	
U. M. C., F. C. trimmed.....	dis 10% 10%
U. M. C., F. L. ground.....	dis 10% 10%
U. M. C., Cen. fire ground.....	dis 10% 10%
U. M. C., Double W. Proof.....	dis 10% 10%
G. D. & S. H.....	dis 33% 10%
E. B. 1-10, Eley's.....	dis 60%
Musket, in 1-10's.....	dis 55%
Hicks Ground Edge in Brass Boxes.....	dis 55%
CARTRIDGES.	
Rim.....	dis 60%
Central Fire, pistol size.....	dis 40%
" " Military.....	dis 1.60
B. B. Caps, Round Halls.....	dis 1.45
" Swaged Conical.....	dis 1.75
NEW LIST ON CARTRIDGES.	
Rim-fire, 22 short.....	dis 6.00
" 32 ".....	dis 15.50
" 38 ".....	dis 18.00
" 41 ".....	dis 17.50
Central Fire—32, \$11.00; 38, \$13.50; 41, 15.00; 44, \$19.	
CARDS.	
Horse and Curry, new list, July, 1881.....	dis 10%
Cotton, new list, July, 1881.....	dis 10%
Wool, new list, July, 1881.....	dis 10%
CARPET STRETCHERS.	
Cast Steel, Polished.....	dis 50% 10%
Cast Iron, Steel Points.....	dis 50% 10%
Bullard's.....	dis 25%
CASTERS.	
Bed.....	dis 60% 10%
Plate and Shallow Socket.....	dis 60% 10%
Deep Socket.....	dis 25% 10%
Martin's Patent (Phoenix).....	dis 25%
CATTLE LEADERS.	
Humason, Beckley & Co's.....	dis 60% 10%
Sargent's.....	dis 60% 10%
P. S. & W.....	dis 25% 10%
CHAIN.	
German Halter and coil Chain.....	dis 50% 10%
Trace, Breast and Fancy.....	dis 60%
Onedra Halter Chain (old list).....	dis 45% 5%
Galvanized Pump Chain.....	dis 60% 10%
Jack Chain, Iron.....	dis 70%
Jack Chain, Brass.....	dis 60% 10%
CHALK.	
White.....	dis 60% 10%
Red.....	dis 85% 10%
Blue.....	dis 85% 10%
White Crayons.....	dis 90% 10%
COTTON LINES.	
Cotton Fish Lines, 20 feet.....	dis 33 1/2%
Cotton Chalk Lines, 20 feet:	
Nos. 11, 13, 15, 17, 20, 25, 30, 3.50, 3.60, 4.00, 4.50, 5.25, 5.75	
CHISELS.	
Socket Framing, Crossman.....	dis 65% 5%
Socket Framing, P. S. & W.....	dis 70% 10%
Socket Framing, Douglass.....	dis 75% 10%
Socket Framers, Crossman.....	dis 65% 5%
Socket Framers, Ohio Tool Co.....	dis 60% 10%
Socket Framers, Douglass.....	dis 75% 10%
Socket Corner.....	dis 70% 10%
Tanged Firmers.....	dis 40% 45%
Tanged Firmers, Butcher's.....	\$5.00 \$5.25 to \$
I. Merrill's Socket and Framing Chisel.....	dis 65% 10%
CLAMPS.	
Iron, Screw, Eagle.....	dis 50%
Iron, Adjustable, Stearns.....	dis 20% 10%
Iron, Cabinet, Sargent's.....	dis 60% 10%
Iron, Carriage maker's, Carr & Crawley.....	dis 25%
CLIPS, AXLE.	
Norway or Best.....	dis 60% 5%
Superior.....	dis 45% 5%
Conestogo.....	dis 60% 10%
Coal Hods—Griffiths.....	dis 40%
COCKS, BRASS.	
Racking, new list, July 10, 1880.....	dis 60% 10% 5%
Globe, new list, July 10, 1880.....	dis 60% 10% 5%
Plain Bibbs, new list, July 10, 1880.....	dis 60% 10% 5%
Ale and Beer, new list, July 10, 1880.....	dis 60% 10% 5%
COFFEE MILLS.	
Parker's.....	dis 45%
Wilson's.....	dis 40% 10%
Logan & Strobbridge.....	dis 45%
Enterprise Mfg. Co.....	dis 25%
COMPASSES, DIVIDERS, &c.	
Compasses.....	dis 60% 10% 10%
Calipers.....	dis 60% 10% 10%
Dividers.....	dis 60% 10% 10%
Cook's Pencil.....	dis 20%

(Awarded First-Class Medal at New Orleans.)

STEPHENS' VISES.

With STEEL FACED or SOLID STEEL SLIDING JAW, and ADJUSTABLE ATTACHMENTS. Superior in Make, Grip, Strength and Durability, and more economical in Time and Labor than any other Vise. Jewelers, Machinists in general, and Car and Locomotive Builders in particular, will find them especially adapted to their need. Also STEPHENS' PATENT PLANK CHUCKS. Sold by hardware, machinery and tool dealers. Send for descriptive circular and price-list.

MELVIN STEPHENS, Proprietor,
Office, 41 Dey St., NEW YORK.

Jewett's New Filter,

WITH NEW and IMPROVED FILTERING BEDS. (See Cut.)



For Lake, River, Hydrant, Cistern or Rain Water. Natural Gravel and Sand, combined with expressly prepared recarbonized Charcoal.

We have made a valuable improvement in our Filter, it being now constructed so as to prevent any "dirt" or solid matter from entering the Filtering Bed proper, so that the Filter can never become clogged or foul. In fact, the water in this Filter is as pure before entering the Filtering Bed, as any other Filter (not charcoal) ever can make it. After that the action of charcoal renders the water chemically pure—something that charcoal filters alone can do. With ordinary care this Filter will last for many years; and whenever it may need repacking, we can furnish a New Filtering Case at about the price it costs to repack, thus saving considerable expense and trouble. Many different sizes and styles, with or without Water Coolers. Price-list, directions for use and book of testimonials sent free by mail on application. Liberal discounts to the trade.

The JOHN C. JEWETT MFG. CO.
BUFFALO, N. Y.

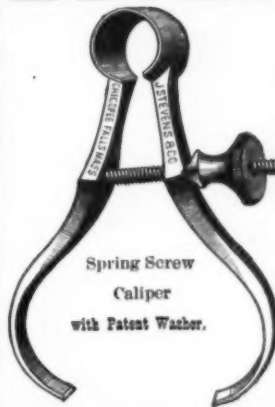
J. STEVENS ARMS AND TOOL CO.

P. O. BOX 860,
Chicopee Falls, Mass.

MANUFACTURERS OF

Spring Calipers

—AND—
DIVIDERS.



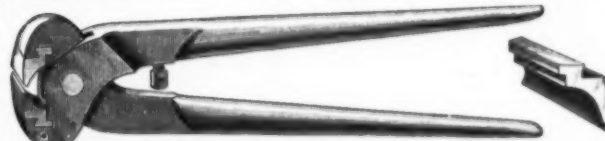
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Machinists'
TOOLS AND FIREARMS.

Shooting Gallery Rifle

IS THE FAVORITE EVERYWHERE.

Send for Illustrated Catalogue.

CAREW'S PATENT WIRE CUTTER.



These goods have recently been greatly improved. They are now made throughout of FORGED STEEL.

The advantage of this cutter is seen at a glance. The adjustable jaws are its main feature. These are made of the best tool steel, and are brought to a keen cutting edge before being tempered. The cutting quality is unsurpassed. Whenever they become dulled by use, they can easily be removed, by driving from the end showing price-mark, ground, and as easily replaced. This may be repeated as often as expedient; or they can be replaced by duplicate jaws, thus obviating the necessity of purchasing new cutters. Five sizes 6, 8, 10, 12 and 14 inch. If your merchant does not keep them, address

M. W. ROBINSON. Sole Agent, 79 Chambers St., N. Y.

THE MANUFACTURERS' RECORD
IS THE FOREMOST EXPONENT OF THE INDUSTRIAL INTERESTS OF THE SOUTH.

SASH LOCK.			
Clancy's No. 100, per gross.....	dis 80%		
Nimick & Brittan Mfg. Co.....	dis 30%		
SASH CORD.			
Common.....	14c. net		
Patent.....	17c. net		
Silver Braided Lake Hemp.....	50c. dis 10%		
Silver Braid, Lake White Cotton.....	50c. dis 10%		
Silver Braided Lake Drab Cotton.....	55c. dis 10%		
Silver Lake Cable Laid, Bengal Unbleached Hemp, 17 lbs.....	dis 10%		
Russian Hemp, 10 lbs.....	dis 10%		
Italian Hemp, 34 lbs.....	dis 10%		
Samson Braided, white cotton.....	dis 30%		
Samson Braided, drab cotton.....	dis 30%		
SASH WEIGHTS.			
Solid Eyes, in 500-lb. lots and over, per lb. 1 1/4c. net			
SAUSAGE STUFFERS OR FILLERS.			
Jiles.....	per doz. \$80, dis 25%	3%	
Enterprise Mfg. Co.....	dis 30%		
Monarch.....	dis 40%		
SAWS.			
Boytont's Lightning Cross Cuts, new list.....	dis 40%		
Boytont's Circular and Mill.....	dis 30%		
Boytont's Ice.....	dis 25%		
Boytont's Lightning Hand, Panel and Rip.....	dis 25%		
Disston's Circular.....	dis 40%		
Disston's Mill.....	dis 40%		
Disston's Cross Cut.....	dis 40%		
Disston's Hand, Panel, Rip, &c.....	dis 20%		
Hubbard, Bakewell & Co. Circular Saws.....	dis 40%		
Hubbard, Bakewell & Co. Cross Cut.....	30c. ft.		
Hubbard, Bakewell & Co., One-Man's, X Cut.....	dis 40%		
Hubbard, Bakewell & Co., Mill Saws.....	dis 40%		
Peace Circular and Mill.....	dis 40%		
Peace Hand, Panel and Rip.....	dis 25%		
Peace Cross Cuts.....	dis 35%		
Webster Hand Saws, all widths.....	dis 10%		
Webster Cross Cut, with handles.....	dis 25%	10%	
Griffin's Hack Saws and Blades.....	dis 30%		
SAW FRAMES.			
White.....	per doz \$1.05, dis 10%		
Saw Rods.....	\$1.10 list, dis 10%		
SAW SETS.			
Stillman's Genuine.....	per doz \$3.50 and \$5.50.....	dis 10%	
Stillman's Imitation.....	per doz \$3.25, dis 30%		
Common Lever.....	per doz \$2.00, dis 30%		
Leach's.....	No. 9, \$3.00; No. 1, \$1.50; dis 15%		
Hammer, Hotchkiss.....	\$5.50, dis 10%		
Aiken's Genuine.....	\$13.00, dis 50%		
Aiken's Imitation.....	\$7.00, dis 30%		
Disston's.....	dis 30%		
Morrill's.....	No. 1, \$1.50; No. 5, \$3.50; dis 35%	10%	
SCALES.			
Hatch, Counter, No. 171.....	per doz \$4.25, dis 37%	10%	
Hatch, Tea, No. 161.....	per doz \$15.00, dis 37%	10%	
Union Platform, Keystone.....	\$6, dis 45%		
Chicago Scale Co.....	Special dis		
Fairbanks.....	dis 20%		
Forsyth Scale Co.....	dis 45%		
Howe's.....	dis 20%		
Chatillon's Grocers'.....	dis 40%		
Chatillon's Eureka.....	dis 25%		
Family Universal.....	dis 50%		
Family Favorite.....	dis 30%		
Family Turnbull's.....	dis 30%		
Scale Beams, List of Jan. 12, 1893.....	dis 0%		
SCRAPPERS.			
Adjust. Box Scraper (S. R. & L. Co.) \$6.50, dis 20%	10%		
Box, 1 Handle.....	per doz \$4, dis 10%		
Box, 2 Handle.....	per doz \$4, dis 10%		
Foot, common.....	per doz \$3, dis 10%		
Wilson Mfg. Co.....	per doz \$3, net		
SCREW DRIVERS.			
Douglas Mfg. Co.....	dis 20%	10%	
Disston's.....	dis 40%		
Cowles Mfg. Co.....	dis 50%	10%	
Stanley Rule & Level Co's. Var. Hdl's.....	dis 50%	10%	
Stanley Rule & Level Co's. Black Hdl's.....	dis 40%	10%	
Ratchet.....	dis 35%		
Clark's Patent.....	dis 25%		
Shepardson.....	dis 25%		
SCREWS.			
Standard new list, Feb. 15.			
Flat Head Bright.....	75c	10%	
Round Head Blue.....	70c	10%	
Flat Head Brass.....	75c		
Round Head Brass.....	70c		
Flat Head Blue (add 1/4% to net).....	75c	10%	
Brass and Silver Capped.....	40c		
Japanned Flat Head.....	38c	10%	
Coach, Patent Fine Point.....	dis 75%		
Coach, Common or Lag.....	dis 60%	10%	
Bed.....	dis 10%		
Machine, Flat Head, Iron.....	dis 55%		
Machine, Round Head, Iron.....	dis 50%		
Bench, Iron.....	dis 50%	10%	
Bench, Wood, Beach.....	per doz \$3.00, dis 10%		
Bench, Wood, Hickory.....	dis 20%	10%	
Hand, Wood.....	dis 20%	10%	
Hand Rail, Sargent's.....	dis 60%	10%	
Hand Rail, Humason, Beckley & Co.'s.....	dis 40%	10%	
Hand Rail, Am. Screw Co., list Jan. 1, '81.....	dis 70%		
Jack (Wilson's).....	dis 25%		
SCREEN FRAMES AND FIXTURES.			
Standard Window Screens No. 1, per doz \$4, 2, \$5			
Door " " No. 1, \$3; dis 50%			
" Window Corner Irons, No. 3, doz. \$5, \$6			
" Door " " No. 6, " \$3			
" Door Latches, per dozen, \$3.60.....	dis 50%		
Porter's Patent Window and Door Screen Frames			
PER DOZ. SETS.			
In White.	In Im. H'l'k Walnut.		
No. 30.....	\$2.75	\$3.25	
No. 21.....	2.25	4.00	
No. 23.....	5.50	6.75	
No. 30.....	6.00	7.50	
No. 30.....	9.00	11.00	
dis 33%			
Porter's Corners—			
No. 0. Corners and Sticks complete for a three-foot window, per doz sets	\$4		
No. 1. Set for Window, per doz sets	Bronzed, \$4.40; Nickel, \$3.60		
No. 1 1/2. " " " " " " " " " " " "	per doz sets, Bronzed, \$3.25; Nickel, \$2.50		
No. 4. " " " " " " " " " " " "	per doz sets, Bronzed, \$4.00; Nickel, \$3.00		
No. 1/2. " " " " " " " " " " " "	per doz sets, Bronzed, \$1.80; Nickel, \$1.00		
No. 4 1/2. " " " " " " " " " " " "	per doz sets, Bronzed, \$2.00; Nickel, \$1.00		
No. 2 1/2. " " " " " " " " " " " "	per doz sets, Bronzed, \$6.75; Nickel, \$5.00		
No. 3. " " " " " " " " " " " "	per doz sets, Bronzed, \$12.00; Nickel, \$24.00		
dis 33%			
Window screen frames (Stuart's).....			dis 25%
SHEARS AND SCISSORS.			
American (Cast) Iron.....	dis 70%	8%	
Pruning.....	see Pruning Hooks and Shears		
Arnard's Lamp Trimmers.....	per doz \$4.00		
Inners.....	dis 15%		
Massachusetts.....	dis 80%	10%	
Nymour's.....	dis 60%	10%	
Arsey Shears.....	dis 80%		
Wiss & Son, Nickle, 90%	3%; Japanned, 60%	3%	

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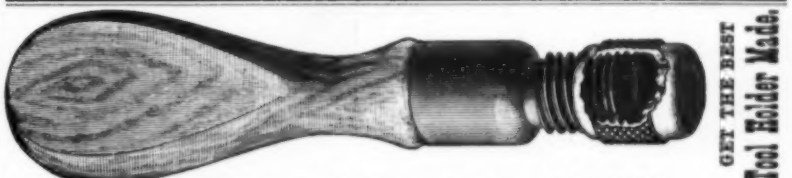
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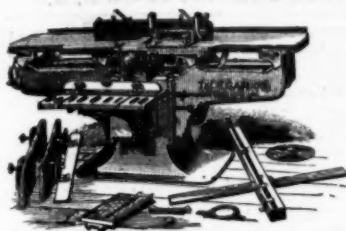
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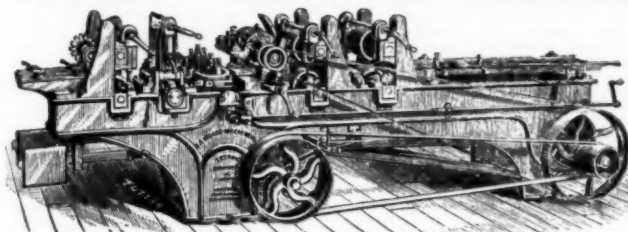
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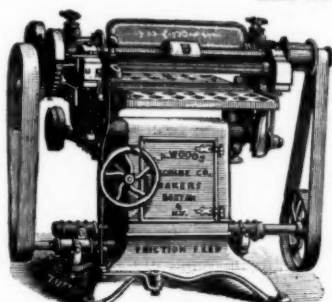
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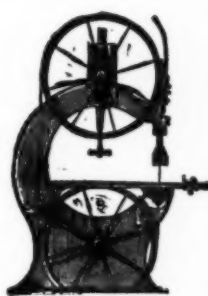


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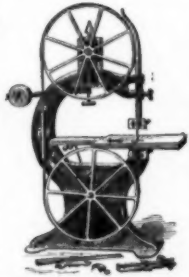
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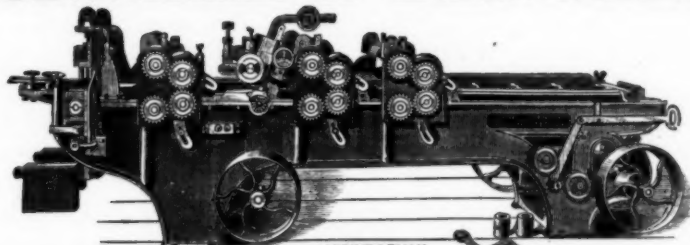
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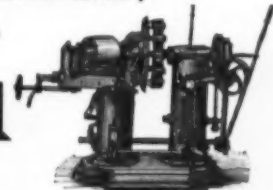
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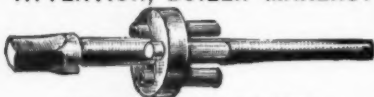
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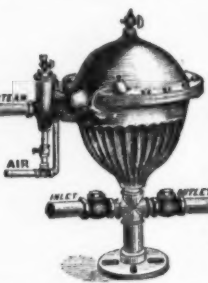


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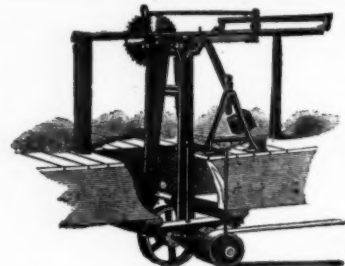
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Mr. MART MARTIN and other responsible citizens of Glen Rose, Texas, will form a partnership with an experienced distiller for the purpose of running a United States distillery in Somerville county.

WANTED.—A practical paper manufacturer with some capital, to assist in running a paper mill for working refuse sugar cane fibre. Mill is erected and in running order, on a large sugar plantation, on railroad and river in Louisiana. Address K, Box 3,330, New Orleans, La.

FOR SALE.—1 Ring Twister, 8 Patent Twisters with spools, shafting, pulleys and belting, for making patent seine twine from 9 to 36 thread. Part of the machinery run less than two months. Will be sold for half its value. Address, Gillette Twine Co., Mount Verd, Tenn.

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WANTED.—A partner with \$5,000 capital in a handle factory, now established with good trade; have a good water power. Timber very cheap and location good. Address G. W. Simpson, Salisbury Furnace, Botetourt county, Va.

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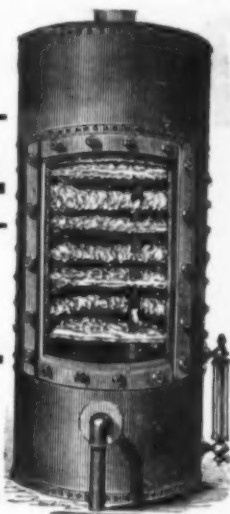
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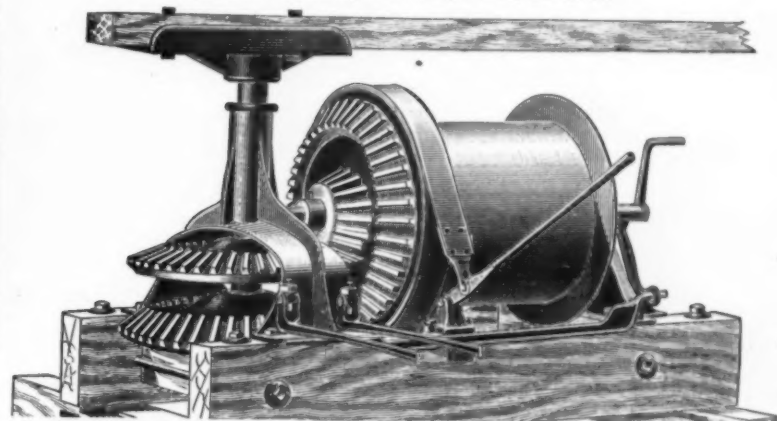
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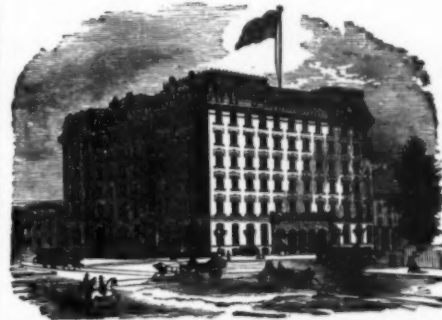
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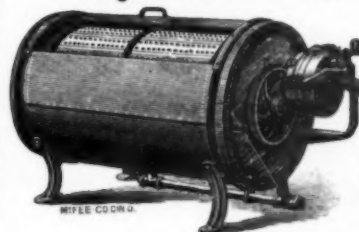
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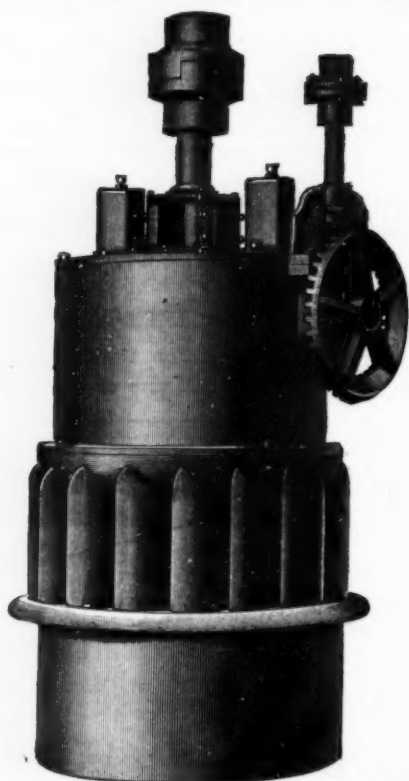
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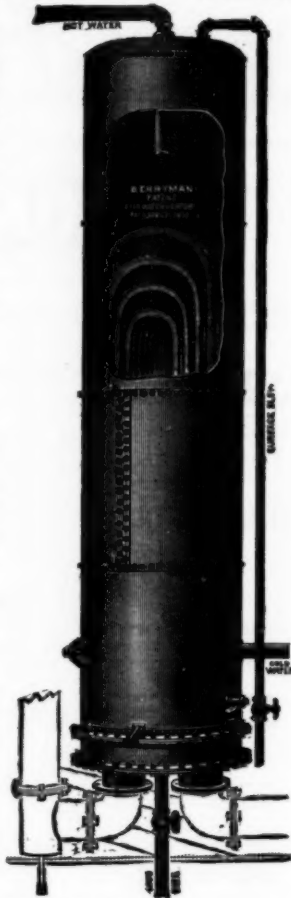
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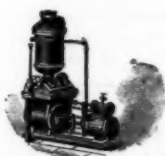
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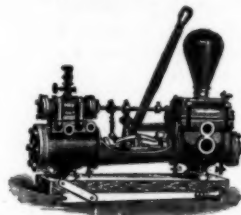
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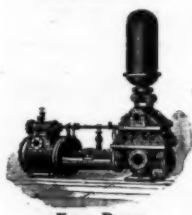
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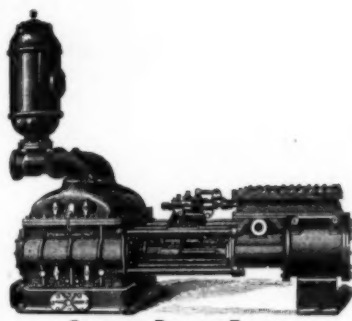


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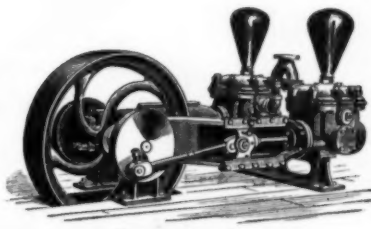


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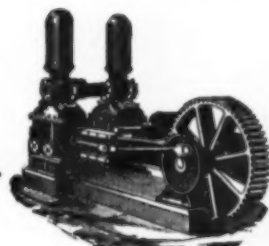
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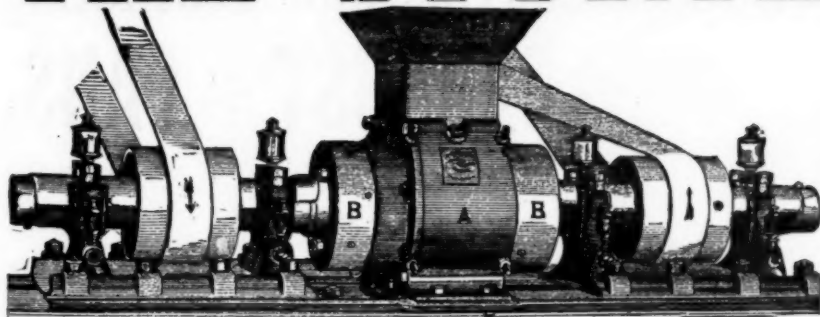
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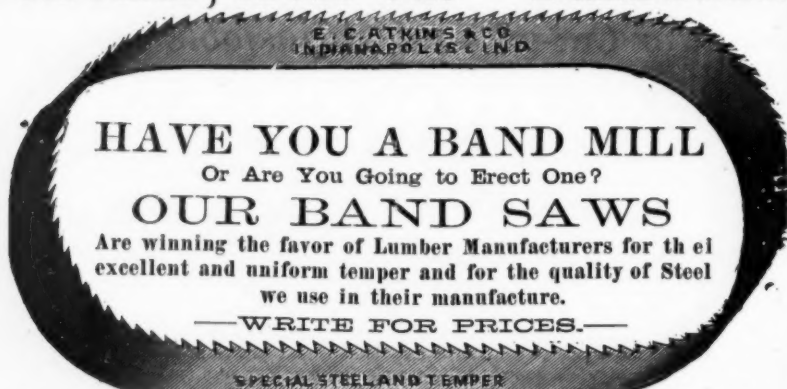
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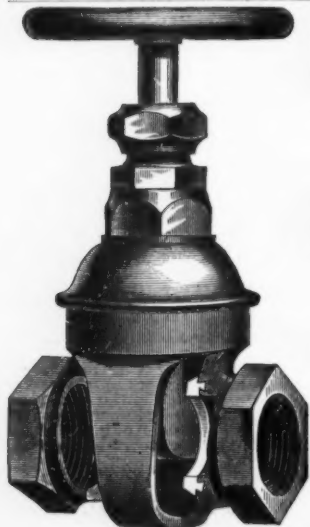
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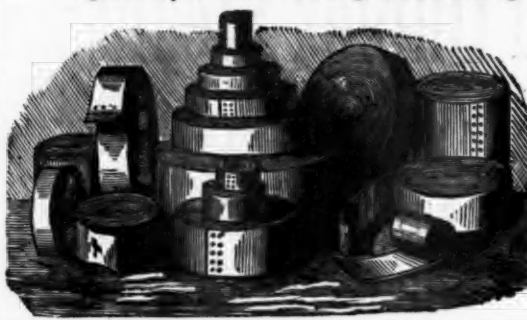
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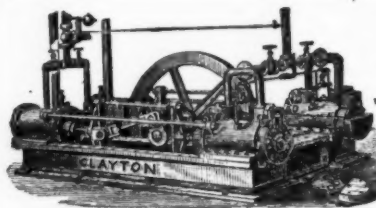
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